

THE AMERICAN ELEVATOR AND GRAIN TRADE

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VOL. XLVI 431 South Dearborn Street, Chicago, Ill., February 15, 1928 NO. 8

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FEED MIXERS
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SOLVE THIS PROBLEM
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Can easily add Twenty-
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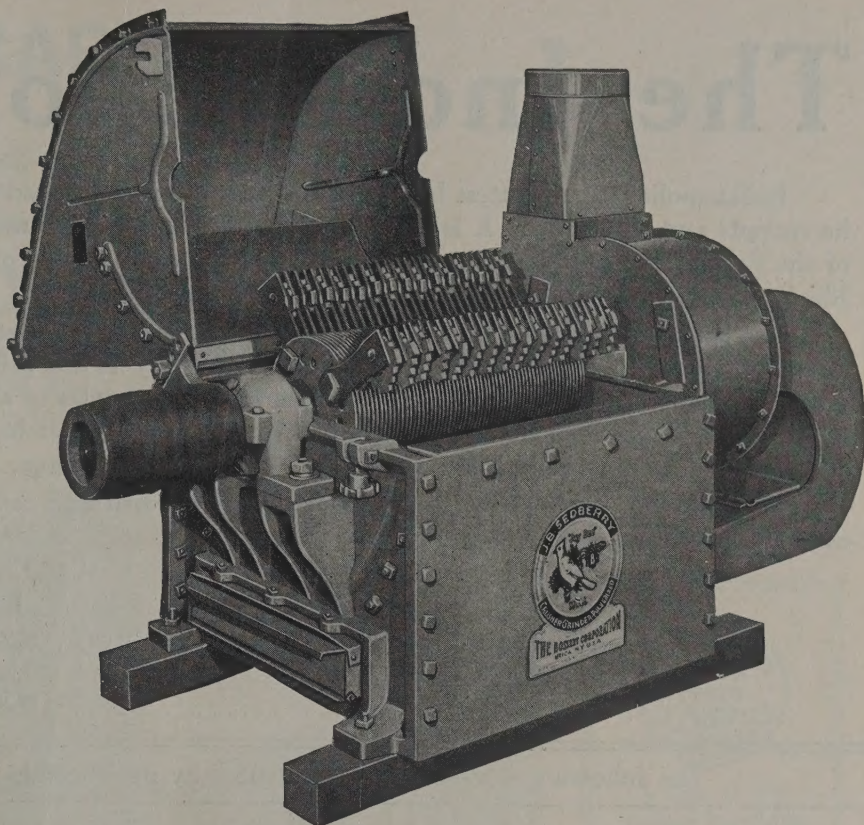
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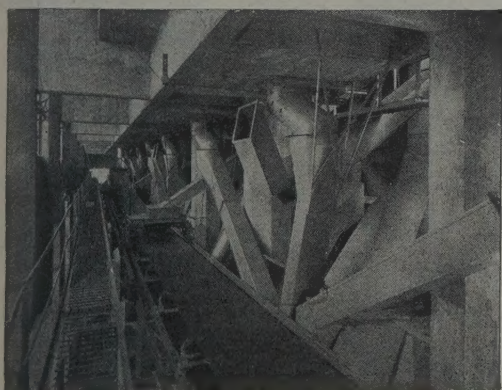
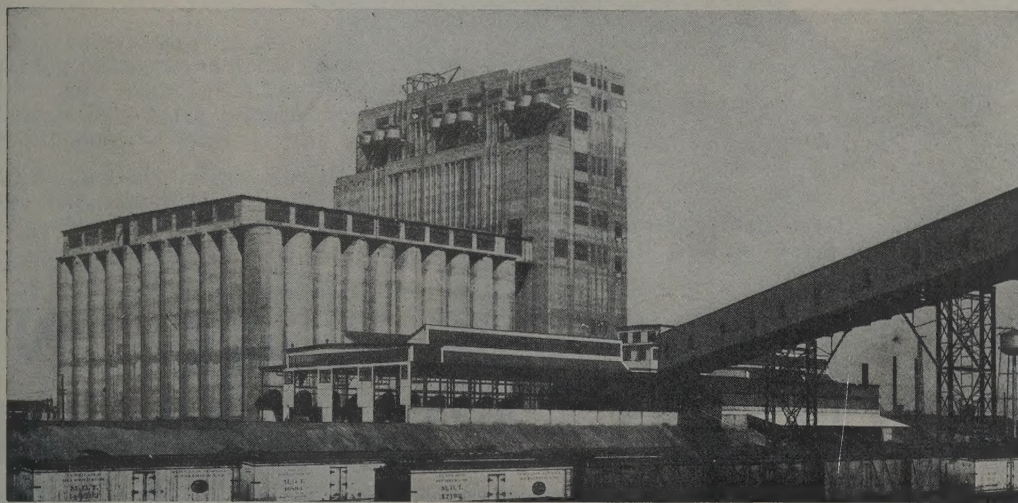
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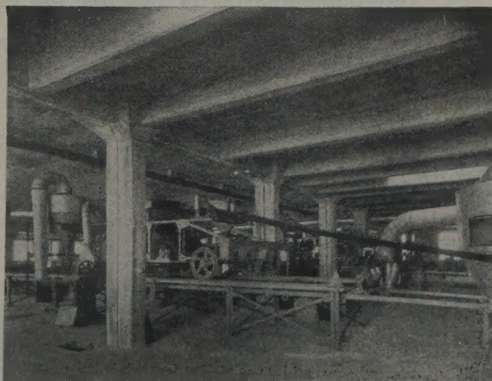
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contemplating new installations or replacing old equipment will find it to their advantage to investigate thoroughly the design and quality of the machinery we make.

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- Wagon Dumps
- Hoppers
- Power Shovels
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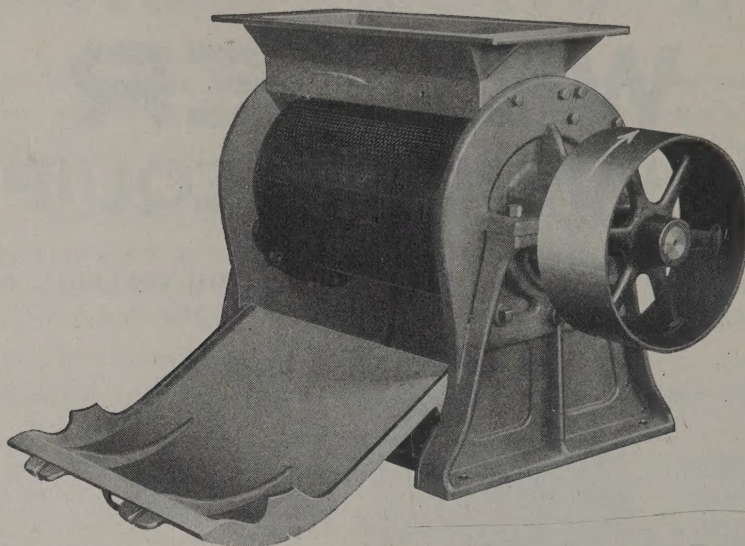
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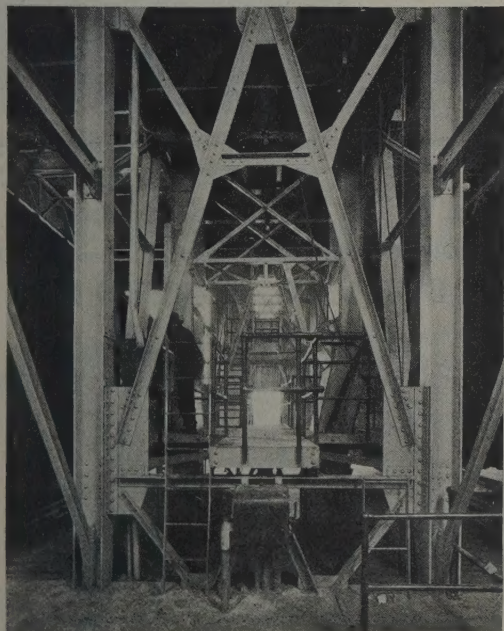
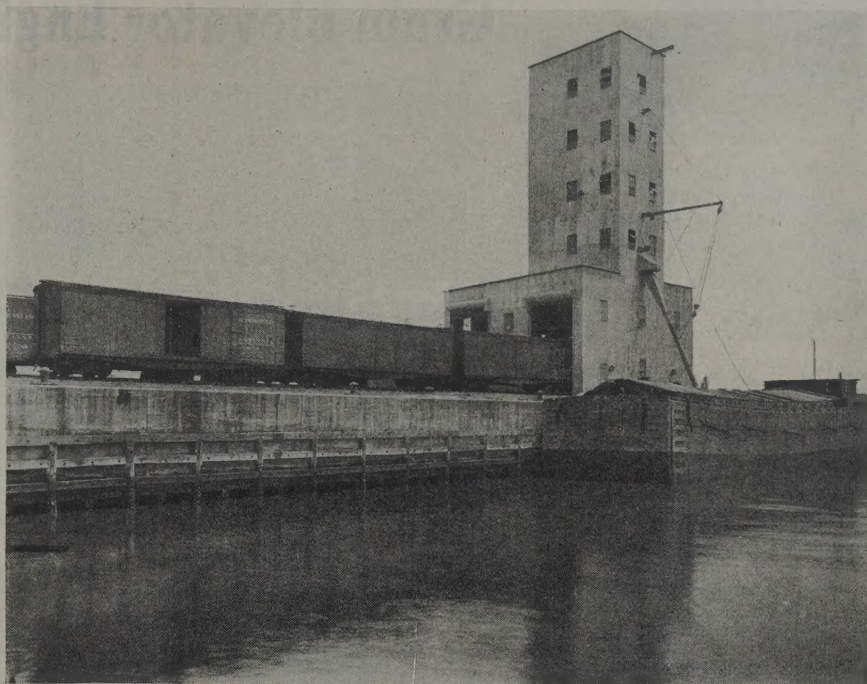
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Designed to transfer grain received in carload shipments over the Pennsylvania Railroad to barges for subsequent shipment into ocean going vessels.

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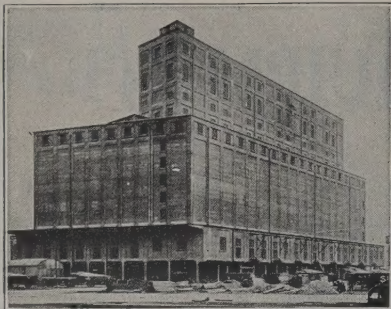
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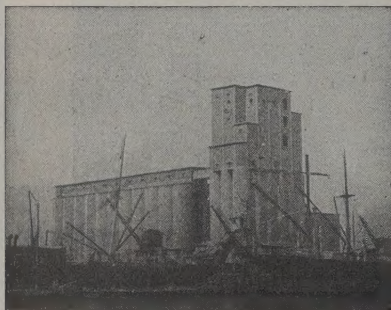
GRAIN HANDLING EQUIPMENT



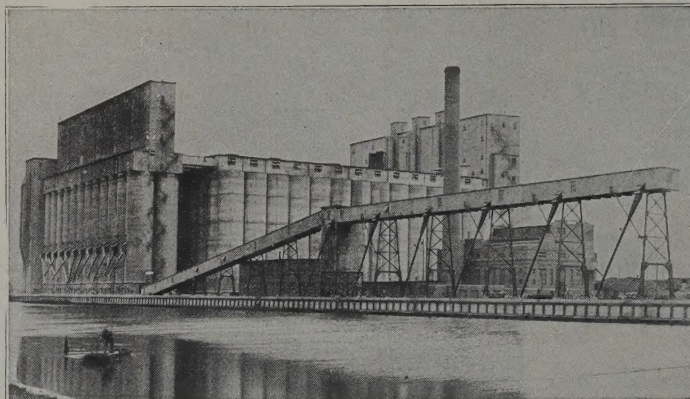
Manchester Ship Canal Elevator
Manchester, England
Capacity 1,500,000 Bushels
Completed 1914



Buenos Aires Elevator Co.
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Capacity 750,000 Bushels
Completed 1920



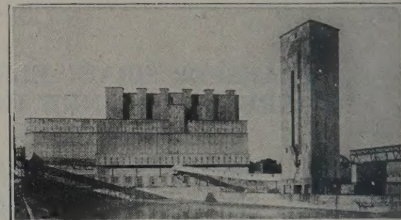
John S. Metcalf Co. Grain Elevator Engineers



Chicago & North Western Railway Elevator
South Chicago, Illinois
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Completed 1920

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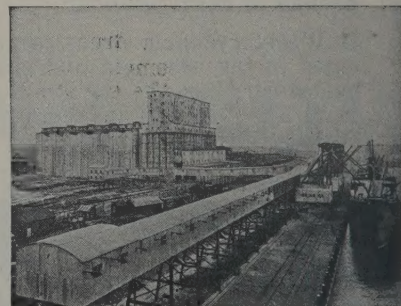
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Completed 1912



Sydney Terminal Elevator
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Capacity 6,400,000 Bushels
Completed 1921

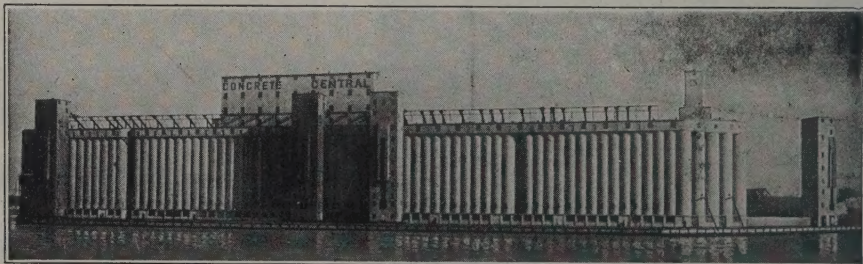


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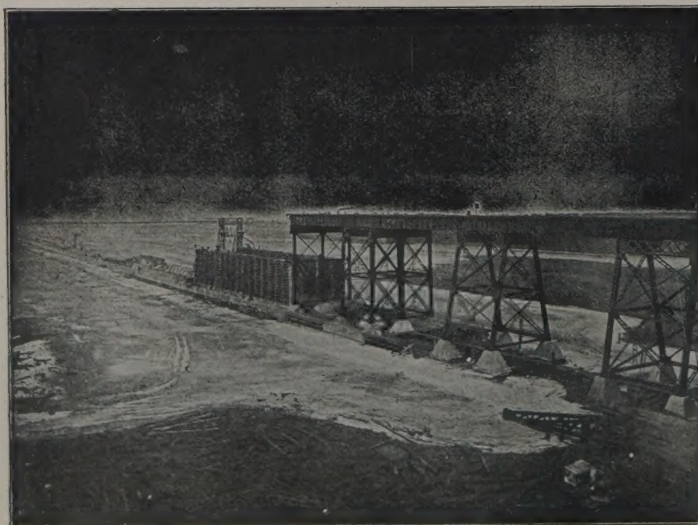
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Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

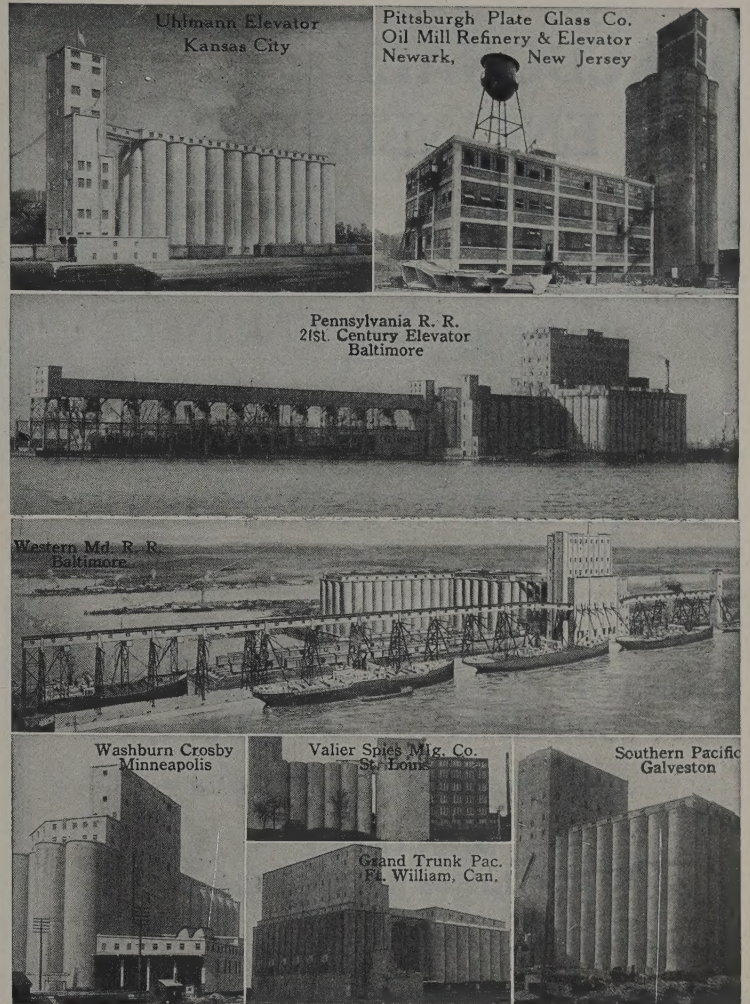
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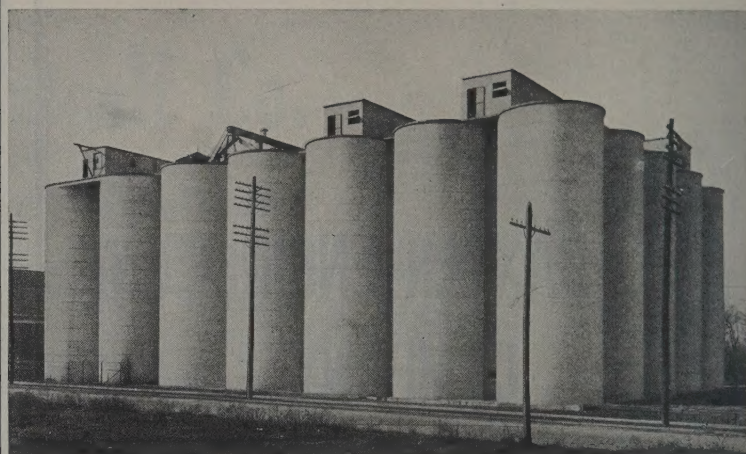
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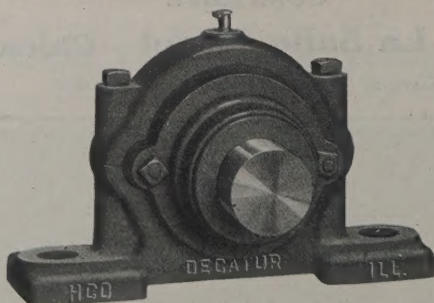
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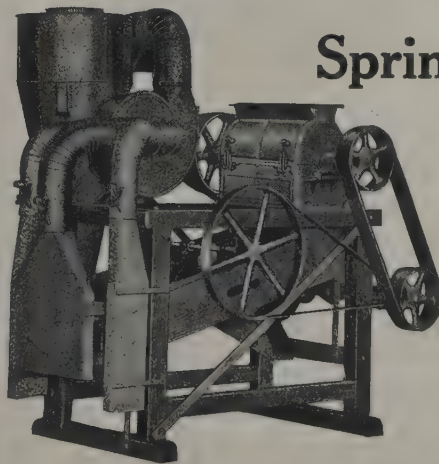
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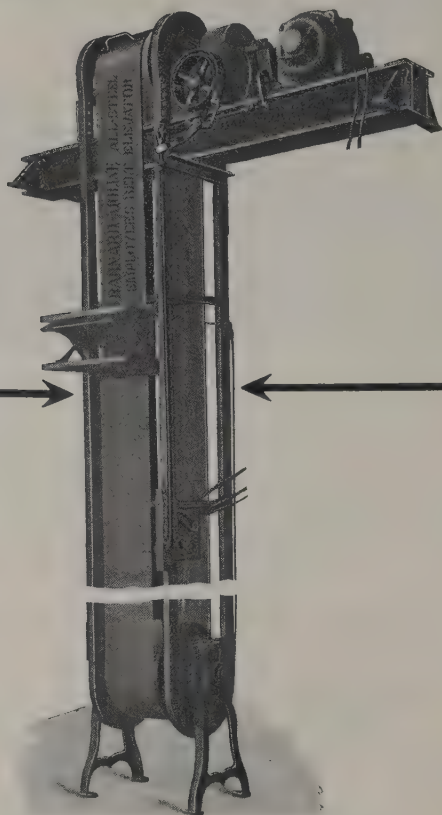
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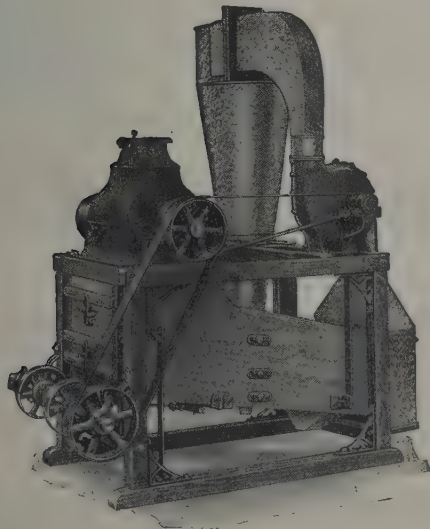
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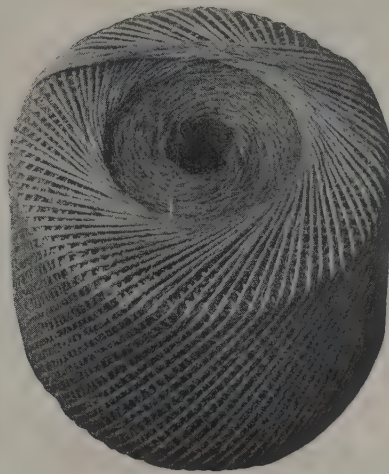
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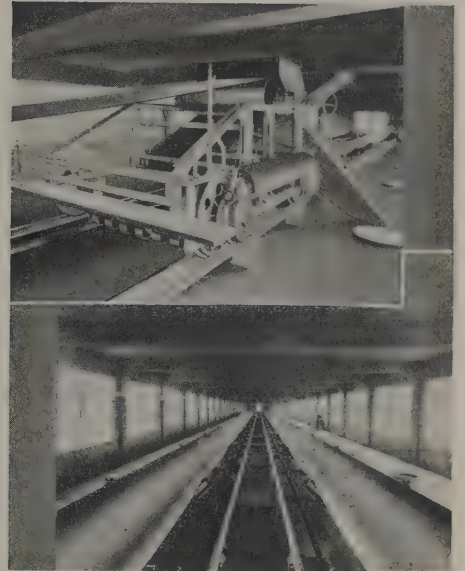
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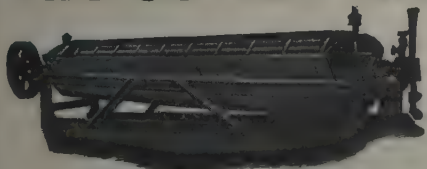
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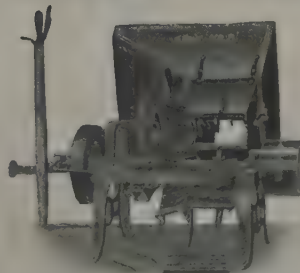
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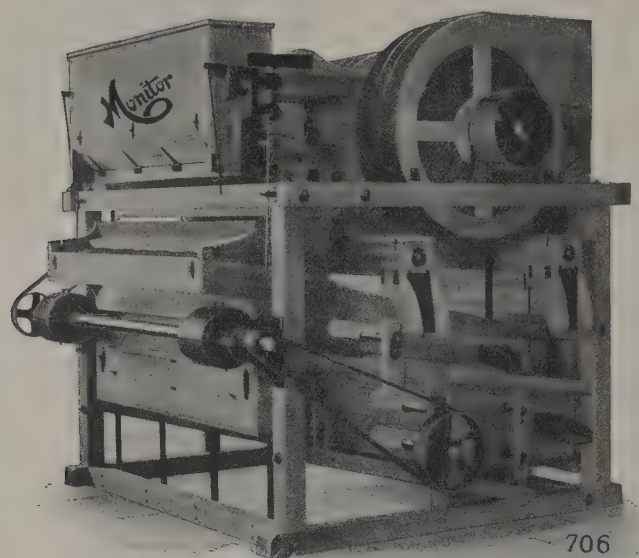
12 sizes, 2 to 35 H.P. Sold with or without elevators.

Mill can be opened like this in less than three minutes by withdrawing four pins.

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Monitor LOCATION • new
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Opportunity Should Not Be Neglected

Opportunity comes to us all, in one way or another.

The Grain Dealer finds himself handicapped for want of a proper cleaner, perhaps to handle an increased amount of business or perhaps because of a worn out machine. Whatever the reason, he finds it desirable to add the Cleaner.

Here is an opportunity—a chance to have the machine which will return the largest earnings. A careful investigation, made at such a time, will point out the machine to buy, for it will show him that the houses using the MONITOR are the most prosperous and have the fewest cases of rejection or dockage. The MONITOR has made their grain clean and without waste.

When you have such an opportunity, study the equipment of others and profit thereby.

The steel frame MONITOR is becoming popular. Stratton Grain Co. of Chicago selected this model for their complete equipment.

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Established in 1882.



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Established in 1882.

VOL. XLVI

CHICAGO, ILLINOIS, FEBRUARY 15, 1928

NO. 8

Another Million Bushels Added to Canadian Storage

New Grain Storage of the N. M. Paterson & Co., Ltd., at Fort William, Ont., Is Completed and Brings the Total Capacity of the House to 2,500,000 Bushels

THE BUILDING of the N. M. Paterson & Co., Ltd.'s remarkable new grain elevator in Fort William, Ont., was finished for the new grain crop of 1927. The casual observer might think that the Fegles Construction Company, of Minneapolis and Ft. William, designed and began the plant February 1, 1927, and completed it in 8½ months. The elevator illustrated below, backed and fed by 100 country elevators in western Canada, was really started 13 years ago and however interesting the description of the completed plant may prove to be, it is only a chapter in the story of N. M. Paterson, known in every business center on the continent as merchant, manufacturer, the owner of a fleet of 30 boats, keen financier, active in civic and national affairs in Canada, and a staunch friend. This recitation of kilowatts, cast iron, and concrete,

the new workhouse were built in two units by the Fegles Construction Company in 1918 and 1922, and served as an annex to the wooden Workhouse "O". The small cupola, central in the block of original storage, houses a loftier leg and scale. The leg serves a marine leg, shown in the illustration, and after the destruction of the wood workhouse the leg and scale were used to handle the grain in the concrete storage, turning this stored grain over, and shipping it out to boats or cars. This leg also serves a pneumatic conveyor which conveys grain under ground through a 12-inch pipe, a distance of 1200 feet from Paterson's Elevator "K", a small wooden receiving and cleaning house.

Although the concrete storage was only 65 feet from the wood workinghouse, and although the fire on December 17, 1926, was one of intense heat, and

was rushed from the factory and installed in one of the end storage tanks to protect grain in storage. About 500,000 bushels of grain were run through the drier in the winter of 1926-27. This was possible with little inconvenience because of the foresight in providing the auxiliary leg and scale, when building the original storage, a course commended to all owners of wood workhouses. The new workhouse spouts grain direct from scales to the 3500-bushel garner above the drier, and dried grain is returned to the new workhouse by a 36-inch belt to a receiving leg boot.

The design of the workhouse was studied in a broad way. Although there has been a radical change in the Canadian grain crop, and in the requirements surrounding its receipt and elevator handling at Fort William, no material change in ele-



ELEVATOR OF N. M. PATERSON & CO., LTD., FORT WILLIAM, ONT.

would be very prosaic without the romantic background of this courageous Canadian, still nearer 40 than 50, who began his business career with less than no cash capital, but who, endowed with rare vision and an ideal, assumed heavy responsibilities and discharged them faithfully, and, clinging to sound principles, built up a business reaching from the Canadian prairies to the St. Lawrence—not by detracting from the success of others, but by the creation of new wealth.

The site of the new workhouse was occupied by a wood workhouse from 1916 until December 17, 1926. The concrete storage tanks to the right of

the wind was toward the storage, very little damage to the tanks was observed. Grain in the end tanks nearest the fire was slightly damaged, but the structure, itself, did not need repair except a coat of cement wash to cover the discoloration due to smoke.

The wooden elevator and contents were a total loss. The debris was cleared away, the old concrete foundations drilled and blasted out, and work on the new workhouse, unloading trackshed, and storage unit to the left in the illustration started about February 1, 1926.

A Randolph Drier, of 750 bushels' hourly capacity

vator design had been made for 20 years. The need of the new requirements was fully met in the basic design of the new house, and full advantage was taken of the progress in the manufacture of mechanical equipment.

The designers felt that the bushel capacity of the workhouse was not important, provided sufficient bins of proper size and of proper arrangement were available for cleaning, shipping, and the temporary storage of dust and screenings. The size of the workhouse is fixed by the requirement of floor space and housing for the mechanical equipment necessary to do the day's work. The designers de-

mandated that the whole unit be in balance, and refused to spend money for equipment or space that would be idle part of the time.

The design was, moreover, built up on the theory that grain must be handled a minimum number of times, and at high speed. This saves invisible loss, reduces power consumption, and economizes on payroll. In all phases of operation, grain moves from its receiving scale in the most direct path to its ultimate position in storage. The workhouse was designed to accomplish this without stopping the grain and without unnecessary re-elevation.

Taking as a fundamental requirement, the owners wish to receive and handle 100 cars in an eight-hour day, the whole plant is built up on that hypothesis.

RECEIVING

The trackshed contains a total of eight unloading pits—two lines of pits on four tracks. Each pit has a capacity of over 2,500 bushels and the pits, in each line, going to each of two receiving legs, are



MOTOR AND GEARS AT ELEVATOR HEAD

interlocked so that only one pit may discharge at a time to the 36-inch receiving belt under it. Four double power shovels are provided, and at shovel positions on the C. N. R. tracks, power driven car door removers are installed. The trackshed spans the whole four tracks, clear with no columns. The trackshed structure is steel with a concrete roof. In the trackshed, at rail level, is a powerful four-drum car haul of improved mechanical design. A heavy shaft extends across the whole trackshed just below rail level, and on this shaft are mounted the cable drums. The drums are driven by cone frictions lined with copper woven asbestos. These frictions are split for quick relining and are operated by levers immediately beside the drum, where the operator can see the cable winding and have clear view along the cars which are in motion. A 50 horsepower motor drives the car haul through a rope drive and gear reduction, this type of drive being selected to cushion the shock. The shovels are driven by individual motors direct-connected to the shovel shaft through a Foote gear reduction set.

The grain having been unloaded is elevated to the top of the workhouse by two receiving legs, and discharged only to two 3,000-bushel garners. These legs, capable of elevating 15,000 bushels per hour, have, of course, steel leg casings, head ventilators, steel boots with modern automatic take-ups, deflector pulleys, 7-ply 32 ounce rubber belts, and elevator cups. The details of the receiving legs are similar to all the other legs in this plant, and will be described here and not repeated. Each leg has an individual motor drive to a double helical, cast-iron encased, oil-immersed gear reduction set to the head shaft. A flexible coupling protects the motor shaft and another flexible coupling is introduced between gear set and head shaft. Each head is protected against reversal under load by a backstop built into the gear set. The designers felt that the prevention of reversal was not, in itself, sufficient. They completed the job and relieved the operator of the onerous task of digging out choked boots by: First, providing an interlock between head motor and receiving belt motor, which stops the receiving belt when the leg head stops; second, they provided a motor of such characteristics that

even with the belt full loaded, and hanging on the backstop, the motor will exert sufficient initial torque to start up under this dead weight (about 200 per cent of running torque), and at the same time this motor will run under normal load with normal current demand and normal efficiency. The gear sets, are nearly 100 per cent efficient. The motors, known as "high torque," "deep bar," or "double wound," were first developed for elevator work at the instance of Fegles Construction Company for use in the Philadelphia Grain Elevator, designed by them, and formally opened January 14, 1928.

All legs may be stopped (but not started) from the scale floor office, so that the use of power can be promptly and conveniently discontinued at the conclusion of an operation.

Having inspected the leg machinery, we will return to the grain we had received and left in the 3,000-bushel garner. Although the garners are of large size, an electrical tell-tale device is installed in each garner to notify the scale floor should a garner fill up to the head spout. Upon receipt of this notice, the scale floor operators can immediately stop the leg motor, and it is stopped with full confidence that it can be started again, under full load, without worry or inconvenience.

Grain from the garner is dropped into 2,500-bushel—150,000-pound scales. There are four 3,000-bushel garners and four 2,500-bushel scales—two receiving and two shipping. A 2,000-bushel car of grain is dropped from the garner in less than one minute, and the scale clears in three minutes—a four-minute cycle per batch. Scale hoppers are cylindrical in shape, made of steel plate with conical bottoms for sure and quick cleaning. Rivets in the cone bottom are countersunk on the inside. A weight shelf is built into the scale frame. Each scale hopper is, of course, provided with peek hole, hand hole, curtain seal, inspection door, ladder, and safety legs. Each scale hopper has a large vent to equalize grain and air exchange.

The scales are pedestal type, solid cast levers, fully equipped with adjustment and compensating devices. Scale beams are type-registering on a steel and cast iron standard, and each scale is equipped with weight-lifting device.

From the receiving scales, grain is spouted through universal or "Mayo" spouts to belts leading to storage, to boat shipping bins, to car spouts, to drier, or to workhouse bins over cleaners. Both receiving scales will spout grain direct into bins over any desired battery of cleaners. This was necessary in this house if the underlying theories were realized, because the several cleaning batteries are each of different kind, selected for a particular duty.

CLEANING

In the fall, at the head of the Great Lakes, grain comes down with a rush. It is a commonly accepted axiom that the cleaning capacity is the capacity of the elevator in receiving and shipping. In Paterson's elevator, grain of whatever kind or grade is cleaned as fast as it is received. It is cleaned, separated, or repeat-cleaned, and put into storage ready to ship with only one elevation after it leaves the receiving scale. Instead of assuming a certain size workhouse, and then putting in such machines as space might permit, Fegles Construction Company departed from convention and from "standard" practice, put in enough machines to do the work desired, and built a house around them.

A workhouse built along previous lines, housing as many cleaning machines as were required, would have been a large and expensive structure. If it cleaned fast, the elevator did not need much grain storage in workhouse. In a house of large area it is difficult, without great height, to get a gravity flow of grain from all the receiving scales to all parts of the workhouse. To clean fast, the firm wanted a number of cleaners in one battery, and if these are spread out on one floor, the distance from the extreme machines to a cleaning leg complicates matters. It wanted to repeat clean in one operation, and it wanted to clean grain on one

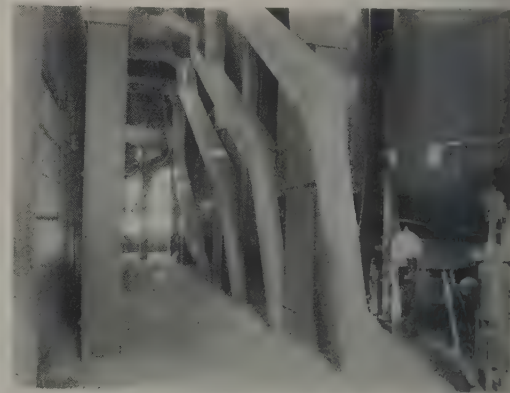
kind of cleaner, and without re-elevating, clean certain products on another kind of cleaners. These requirements dictated a novel arrangement, which has proven to be most successful—two cleaning floors were provided below the workhouse bins.

There are three principal batteries of cleaners, but an empty bay on two floors along one side of the house will permit of future cleaner installations, should the requirement of more diversified cleaning make these necessary.

Battery No. 1 consists of six No. 10 Monitor Warehouse Receiving Separators, three on the lower and three directly above on the upper cleaner floor. All six are fed from a common hopper, which is spouted to at least six 3,000-bushel bins. Either three (or any machine), may be run independently, or all six may run on the same car which is the usual procedure. The top three can discharge cleaned grain to the bottom three for repeat cleaning, or the top three will discharge direct to a cleaning leg. For this battery is provided a cleaned wheat leg, a conveyor to a common oats leg, and a conveyor to a common screenings leg. Monitor machines are manufactured and furnished by the Huntley Manufacturing Company of Tillsonburg, Ont., and Silver Creek, N. Y.

Battery No. 2 consists of two "Big 5" Carter Mayhew Wheat and Oat Separators on the top cleaner floor, and below them, on the lower cleaner floor, two No. 11 Monitor Warehouse Receiving Separators. This, like all batteries, may have the upper machines cleaning to either the machines below or to a cleaning leg. The lower machines may be run independent of the upper machines. This battery is served by a cleaned wheat leg, a mill oats leg and conveyors to the common screenings leg and to a common oats leg.

Battery No. 3 consists of six, five-unit Emerson Cylinder Cleaners, manufactured by the Twin City Separator Company of Minneapolis and Winnipeg. Three machines on the top floor over three machines on the lower floor are arranged to work separately, or combined, and to repeat clean when



SCALE FLOOR

desired. This battery is served by a clean wheat leg, and conveyors to the mill oats and screenings legs. In the cleaning of barley and mixtures of Spring and Durum wheats, the common oats leg is used for the fourth separation. (At the time of writing only four of these Emersons are installed.)

Screenings are elevated and discharged to a 3,000-bushel screenings garner over two No. 9 Monitor Screenings Machines, located on the scale floor. The several products are spouted direct to workhouse bins, the wheat stream being first run through a single Carter Mayhew Disc for oat separation, and through a second Carter Mayhew Disc for seed separation.

The central bay, in which the cleaning machines are located, has 20 3,000-bushel bins for the receiving of grain from receiving scales. In addition to these special cleaning bins, certain bins in adjacent bays reach the cleaners.

Each cleaning leg discharges to a larger garner, which serves as a surge tank if the storage belts to certain bins are not available continuously. These five garners are spouted to telescope spouts in the distributing story, where cleaned grain is loaded

February 15, 1928

on to the proper storage belt. Cleaned grain can be placed in workhouse bins, although there is no purpose in making that arrangement, and it can also be shipped to car or boat without going to storage. So successful has been this arrangement, and so well balanced the batteries of cleaners installed, that at the conclusion of the day's receipts, no more than an hour elapses until all grain is cleaned, placed in its proper storage bin, and the workhouse empty for the next day's receipts.

SHIPPING

Two shipping legs ship grain to boats or cars. These legs get their grain from storage or from workhouse bins. The leg casings are 50 inches wide, the individual motors driving them are 175 horsepower each, each leg will elevate 30,000 bushels per hour, and the scales and spouting will take it away after it is elevated.

In the workhouse are four shipping bins of about 5,000 bushels' capacity each serving two boat spouts. Boat spouts are of large size with winches for handling the sleeves. A gallery, conveniently reached from the upper cleaner floor, affords access to the heads of the spouts, and the rack and pinion valves. Receiving legs will also ship.

MISCELLANEOUS EQUIPMENT

An efficient dust collector system takes dust from the cleaning machine collectors and from sweep-ups located at convenient points on all floors and discharges to a master collector above the dust bin in the workhouse. Dust collectors, which hang on walls, have a service walkway and ladder provided for giving them proper attention.

A motor-driven air compressor with receiver is located in the boiler house and air is piped to within reach of every motor in the workhouse for blowing out.

Adjacent to the trackshed are two grain inspectors' offices for handling samples and grading. On the first floor of the workhouse is an elevator foreman's office, and on the scale floor an office for the house weighman and another for the master weighman's representative. The offices are electric heated.

One of the receiving pits, part of the old work-



CONVEYOR GALLERY

house structure, remained after the fire. It was 15 feet above lake level, dry, fireproof, roomy and one end provided light and ventilation. This was made into a welfare room for employees by removing the hopper and casting a concrete roof. It also serves as a passage under tracks. Toilets and wash rooms are provided here and on one end a lunchroom. The welfare room is steam heated.

A passenger elevator runs from the lower cleaner floor to the head floor. This machine is of the latest direct-connected motor-driven type, fully automatic, operated with push buttons, interlocked with the enclosure doors, and protected with safety device.

An electric motor-driven winch is provided on the top floor for hoisting and lowering heavy pieces of equipment. An I-beam with trolley extends the length of the house on the top floor for moving large motors and gear reducers, should that ever be necessary. Landing platforms are provided on I-beams cantilevering out from the wall at each hoist door.

An employees' belt elevator serves from the basement, or dock level to the upper cleaner floor.

There is a sliding pole between scale and distributing floor. Steel stairs with open bar treads lead from the basement to top floor.

A full equipment of signal systems is provided, including an eight station telephone system, and a ticket elevator. Between the trackshed and scale floor are colored lights to indicate the conclusion of emptying a receiving pit and showing which pit was emptied and also to signal the readiness of the scale floor to take unloaded grain. There are also lights between the dock, or boat spouts, and the shipping scales, and between the car spouts and shipping scales. Warning horns indicate that the car haul is about to move cars.

The whole plant is adequately lighted with electric lights inside and flood lights illuminate the dock and the tracks.

The connected load in electric motors is approximately 1,400 horsepower. A sub-station with synchronous condenser previously served the plant before the fire, and as very little more current is required for the new plant, this sub-station with minor alterations was sufficient.

The Gutta Percha & Rubber Company handled part of the belt order.

The workhouse structure necessary to house the equipment described, and provide adequate space for operation, was built of reinforced concrete, all fireproof, conservatively designed by a capable engineering staff, and rests on wood pile foundations. Its size in the plan is 58 feet wide (four bays) by 86 feet long (five bays); its height from the top of a solid 34-inch concrete mat to the roof is 195 feet, it contains 44 bins having a total capacity of 175,000 bushels, ranging in size from 2500 bushels to 7500 bushels each. Garners and receiving pits are not included in the above capacity.

STORAGE

Up stream from the new workhouse was built a new block of concrete storage tanks, resting on wood pile foundations. The storage capacity of the new block of tanks is approximately 1,000,000 bushels. The capacity of the completed plant, including the original block of storage tanks, the new workhouse, and the new storage, is 2,500,000 bushels. The new storage tanks are 22 in number, two tanks wide, and 11 tanks long, with 10 interstices. The inside tank diameter is 26 feet, and the tank walls extend 105 feet above the heavy foundation mattress. Each storage bin contains approximately 41,000 bushels and each interstice bin approximately 10,000 bushels.

The basement of the storage is unusually open, well-lighted, and perfectly ventilated. Direct outside light reaches every part of the storage basement.

The bin bottoms, fully hoppers, have a central steel cone approximately 16 feet in diameter, the balance of the bin bottom being reinforced concrete with hopper fill and cement finish. The slope of the steel bottoms is eight in 12, but the slope of the cement hopping is nine in 12.

The tops of the tanks are entirely covered with a concrete floor and roof. On the tank cover is built a reinforced concrete cupola. The storage cupola was cut entirely through at a central point to form an expansion joint, and this joint was flashed with flexible flashing.

Each storage bin is vented to the outside at the top with a vent of sufficient size to reduce the dust in the storage cupola when grain is being received into the tanks.

The cupola is amply lighted with steel sash and double strength glass and electric lights are, of course, provided in both basement and storage, and there are also outlets for extension cords at frequent intervals.

The conduit and terminal castings for a future temperature recording system was installed in all of the new bins.

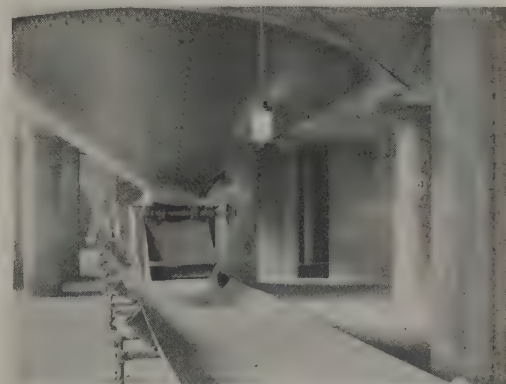
In the basement of the storage are provided two 40-inch conveyor belt delivering grain from the storage unit to the two shipping legs, each belt serving its individual leg. In the basement of the old storage there is one 40-inch conveyor belt extending the full length of the storage but divided in the middle and separately driven. This belt

delivers its grain to either of the two shipping legs by means of a cross belt. A 36-inch belt used for conveying dried grain, and earlier referred to in this article, extends back under the first 10 tanks on the in-shore side of the old storage, so that one receiving leg can also be used as a shipper.

In the cupola of the new storage are provided two 36-inch conveyor belts and two self-propelling two-pulley, two-way, heavy duty trippers. Grain from any scale in the cupola, or any cleaning garner in the cupola, will reach either or both new storage cupola belts, and will also reach a 36-inch storage belt serving the cupola of the old storage.

Provision has been made for the installation of additional storage cupola belts in the future if the diversification of cleaning and the handling of numerous small lots makes that desirable.

Especially designed, large capacity, choke feed belt loaders take the grain from the steel bottoms of the tanks and load the conveyor belts for shipping. These loaders are special Fegles Construction Company design, and lay the grain on the conveyor



BIN BOTTOMS AND CONVEYOR BELOW STORAGE TANKS

belt in a ribbon instead of attempting to pile it up in the center of the belt.

All storage basement draw-offs are provided not only with a choke feed on the belt, but have valves with double rack and pinion operating devices.

MIAMI OATS YIELD WELL

Fulghum oats for a number of years has proved the best oats for the southern part of Ohio and Miami for the northern part in variety tests made on the nine county experiment farms by the Ohio Experiment Station. Fulghum is better adapted to the hot seasons in southern Ohio than is Miami and has outyielded all other varieties in the tests on Washington, Clermont, and Hamilton County experiment farms.

The Miami is one of the newer varieties developed at the experiment station. It is well adapted to the white oat section of northern Ohio and led other varieties in the tests on the Paulding, Mahoning, and Trumbull County experiment farms in that part of the state.

In central Ohio on the Miami, Madison, and Belmont County experiment farms the two varieties have consistently run a close race for the several years of the tests, Miami usually leading by one to five bushels per acre.

STORAGE NEED STUDIED

Appointment of a committee to take up with the Port of Tacoma Commission and private interests the matter of providing Tacoma, Wash., with bulk grain elevator and storage facilities was authorized last month by the Tacoma Chamber of Commerce. Investigators for Tacoma business men reported that the city has lost considerable prestige as a grain center because of the lack of modern elevator equipment.

When grain export requirements shifted from sacks to bulk handling, no bulk grain facilities were supplied there. Other ports, report the investigators, are cashing in on their bulk grain facilities.

Hints for the Elevator Millwright

"Big Bill" Davis Advocates Reducing Waste Due to a Defective Steam Pump, and Shows How to Rig a Home-Made Steam Gauge Testing Device

By JAMES F. HOBART

"IT looks as if that pump must be using a powerful lot of steam," remarked the engineer of the elevator to Big Bill Davis, who had been passing the plant and stopped to look in for a casual visit.

"Yes," answered the engineer, "it would be a good thing for our owner's pocketbook if that pump got sent to the shop for an overhauling." They watched the clouds of vapor which issued in a continual exhaust with no distinguishing puffs from the exhaust pipe leading from the laboring steam pump.

"If you haven't machine shop facilities and if you don't know steam pump construction thoroughly," said Big Bill, "you had better go slow about tearing out that duplex steam pump."

"Why not?" replied the engineer. "If I find any part worn out or broken, I can repair the part or make a new one, can't I? So, why not take the pump down the first time it can be spared for a half day?"

"It is possible but not at all probable," replied Mr. Davis. "There are a number of intricate parts in the mechanism of a duplex steam pump and it will be a slow, tedious process to replace some of these parts when they must be made by ordinary machine shop tools and facilities. Such parts as are worn out should be replaced by duplicate parts furnished by the manufacturer of the pump."

"If you still insist on repairing this pump here though," continued Davis, "there are several things to consider. Even before disconnecting its pipe connections, send to the pump manufacturer and get blueprints showing the details of the pump. Also, I would suggest getting all the pump descriptions and instructions that the pump manufacturer can be persuaded to furnish you. Then study the detailed drawings of the pump parts. You will find that there is a complex mechanism inside the valve chambers. You will learn that instead of there being two independent steam engines in the pump—as far as pistons and valves are concerned—there are actually four engines.

"You will discover that each steam valve is not operated by a lever from the other piston rod, but that about mid-stroke of one pump-piston rod its attached lever actuates a dinky little valve inside the steam chest of the other piston, or its valve chest. Furthermore, the 'dinky little valve' does not admit steam to operate the steam piston of that side of the duplex pump. Old duplex pumps used to have their steam valves operated in that manner, and it was found that so much stress was necessary to operate the valve that the lever connection soon wore out and was continually giving trouble.

"That 'dinky little steam valve' actuated from the other piston rod, admits steam to another little independent engine, inside of the steam pump, and that little engine, though small, is powerful enough to operate with sureness and completeness, the main steam and exhaust valve which operates or admits and releases steam from the steam pump cylinder. Thus, the levers which connect the pump rods with the opposite steam chests have nothing to do directly, save to move and easily operate the valve which starts the auxiliary engine to operate the main steam valve of one of the pump steam cylinders.

"After you have studied the working of the duplex pump and are familiar with the functions and relations of the different parts, you had better check up and see if you have the necessary tools on hand. You are likely to decide by that time that you do not care to make such parts as are worn out or broken.

"You are likely to find yourself snowed under when you take the pump apart and commence to list the parts which it seems necessary to replace.

Parts which seem good enough not to be replaced when the examination was made may be found so lacking upon reassembling that still another hurry-up order for more parts will be necessary. This entails many delays. No, I'd say it would be best to send this pump back to the maker and get the manufacturer to insert the parts and make the needed internal adjustments."

"When you begin to dig into that pump further," continued Mr. Davis, "you will of course look over the water end of the pump also, and it may be found necessary to remove the cylinder lining and insert new bushings in the cylinders so as to stop power losses in the water end as well as in the steam end of the pump. Taken all in all, don't you think it will pay to send the pump to its manufacturer for overhauling rather than to attempt to work yourself?"

"But like all questions, there are two sides to this one and perhaps it would be money in the pocket of the owner if you pulled this pump down at once and fed the boilers with an injector from now on, until the pump was repaired or a new one obtained. Your steam engine is probably developing a horsepower from the consumption of 20 to 40 pounds of steam per hour. But, the steam pump, the way it is working now, is surely using upwards of 400 pounds of steam each hour, and you can calculate the cost by allowing eight pounds of water evaporated by each pound of coal burned. So, it would probably pay to close down your extravagant steam pump for repairs at once, and use the injector altogether. Rather than run this wasteful steam pump in its present condition, it might pay for you to tinker it indefinitely or even to use it to anchor a boat with!"

HOME-MADE STEAM GAUGE TESTER

"What have you there?" asked Big Bill Davis.

"It is a pressure gauge which I keep as a sort of master gauge," said the other. "I only use this gauge when I compare and test the gauges at the boilers and elsewhere in this elevator. I have my master gauge tested whenever the boiler inspector comes around, by comparing it with his gauge, but I wish I had a mercury column of my own, but I can't quite afford it yet, and the elevator management doesn't enthuse a bit in that direction."

"How do you compare the working gauges with your master gauge?" asked Big Bill. In reply the millwright conducted Mr. Davis to his shop, adjoining the boiler room, where, on a long plank bench there had been rigged connections, vertically upward, for attaching the water gauge and also the gauge to be tested. There were stop valves, one on either side of each gauge connection, and from the end a pipe led to the boiler feed pump, by means of which pressure was obtained for resting the gauge. A by-pass had been rigged around the feed pump in such a manner, that when the boiler feed valve was closed, the pump could be made to force water around and around through its pipe connections, and, by adjusting the by-pass valve any desired pressure up to the limit of the pump could be maintained in the piping and on the gauge-testing bench.

"Here, I'll tell you how to rig a limit-gauge right on your test-bench, which will do anything necessary for the checking of your master gauge, although it will not be found as handy as a mercury column, yet it will be found fully as accurate," said Mr. Davis as he approached and examined the little bench and its outlets for attaching gauges, and looked at the by-pass around the feed pump which had been lengthened and brought to the test bench in such a manner that a stop valve in the by-pass could be reached and adjusted while watching the gauges which might be under test.

"Break into the pipe leading to the feed pump," said Big Bill, "and put in a tee, with its branch 'looking' upward, and support this tee in such a

strong and rigid manner that 200 pounds weight or more can be placed upon the tee without causing any appreciable bending or deflection. There should also be arranged a way for several gallons of water to escape from the tee without wetting the floor or surroundings." Mr. Davis also showed how to arrange a small pit underneath the tee for a purpose which will be explained in a later paragraph.

A stop valve was already in place between the tee and the gauge attachment opening and another stop valve was placed close to the tee, and between it and the feed pump. The pipe leading from this valve to the feed pump was reduced in size to one-half or less of the diameter of the opening on the branch in the tee. Were the branch three-quarters inch, the pipe or a section of it at least, to the feed pump, would be three-eighths or one-half inch in diameter, for the purpose of cutting down the amount of water which could issue from the tee. Into the tee was then fitted a short piece of pipe, and we will assume that it was one inch black pipe, although any other diameter could be made to answer the purpose. This piece of pipe, about three or five inches long, was heated and its upper end squared until it had a square opening just a trifle less than one inch square. In making this opening, a piece of pipe, two or three feet long, was forged to a size that permitted its square hole to be filed up to exactly one inch square, then a four or five-inch piece of the pipe was cut off, threaded, and screwed into the tee, but not until after the squared opening had been carefully and smoothly filed to a one square inch opening. Then, the pipe walls were brought to a knife-edge all around, and very carefully finished flat and out of wind on the end, so that the opening could be closed air and water tight by placing a flat piece of metal over the square opening. Such a piece of metal was then fabricated, being made a half-inch thick, circular and with a diameter about 11/16 inch larger than the diagonal diameter of the squared pipe.

The best side of the disc was reversed for its face; then a conical hole about three-eighths inch wide and deep was made in the center of the back side of the disc. Then, both the face of the disc and the knife-edge end of the square pipe were case-hardened by heating and dipping two or three times in roughly flaked yellow prussiate or potash, and then rinsed in water. The end of the square pipe and the face of the disc were then ground upon a flatly placed sheet of fine emery cloth.

A short sleeve—about an inch long, of thin black sheet steel was made to fit upon the disc and even, flush with its back side projecting past the side of the disc which was then placed in position upon the squared pipe after the latter had been screwed into the tee. A metal hook was then made, resembling a letter "C." The upper end was pointed to fit in the hole in the upper side of the disc. The other or lower end of the hook, which was wide enough to hang clear of the side of the testing bench, was fitted with a scale pan into which weights could be placed, varying in as small units as desired, say 20 pounds, until the hook could be loaded as high as it was desired to test any gauge, say up to 200 pounds per square inch.

With the required maximum weight in place upon the disc, and the gauges in place, Big Bill showed how to run pressure up and down as desired, by manipulating the by-pass valve. Then, when minimum pressure was reached, the disc would lift, the pressure water spill, and the small connecting pipe here did its duty of preventing an accumulation of water-volume faster than the disc lift could relieve the pressure.

THE estimate of the Canadian rye crop has been revised downward to 14,951,000 from 16,070,000 bushels. The total production in 27 countries is 877,000,000 bushels as compared with 802,000,000 bushels in 1926. The total rye are reported by six countries for harvest in 1928 is 9,401,000 acres against 9,224,000 acres sown last year. Of the 1928 total, France reported 1,982,000 acres, an increase of 12,000 acres over 1927.

Wheat Smut and the Copper Carbonate Treatment

A Discussion by Government Experts of the Damages by Smut and the Method of Combating the Evil

By E. G. BOERNER, Grain Marketing Specialist, and F. C. MEIER, Plant Pathologist, United States Department of Agriculture

SMUT in wheat is causing farmers an annual loss of millions of dollars. The disease of stinking smut or bunt occurs to some extent wherever wheat is grown. In the Pacific Northwest, smut has been a serious problem for a number of years but east of the Rocky Mountains wheat has been comparatively free of smut until recent years. During the past three or four years something has happened to increase greatly the amount of smut in the states east of the Rockies and to cause it to spread more or less generally over entire states.

The percentage of wheat received in recent years at a number of important markets that was graded "smutty" is shown in the table. It will be noticed that last year there was a decrease in smut in some sections. This was, no doubt, due in part to energetic seed-treatment campaigns.

Smut in wheat results both in a reduction in yield of grain per acre and in heavy price discounts. The combined effect of these two factors means a material loss for each farm where smutty wheat is produced. It has been estimated by the Plant Dis-

moved. Any attempt to mill smutty wheat without removing the smut would result in the production of flour with a disagreeable odor and poor color. Bread and other products made from such flour would be similarly affected. Therefore smutty wheat must be cleaned of smut after it leaves the farm and before it is milled.

To remove smut from threshed wheat requires special machinery and extra handling. The process of removing the smut by either of the two methods commonly used usually leaves the grain in a less attractive condition than it would have been if no treatment had been required. This further detracts from its market value. Because smutty wheat has a lower commercial value than similar wheat free of smut, the smutty wheat requires separate storage, separate handling, and separate transportation. To mix smutty wheat with smut-free wheat would generally result only in reducing the value of the smut-free wheat. The discounts for smutty wheat range from a few cents to 25 or more cents per bushel. This amounts to a substantial item when stated in terms of loss per farm and total loss for all smutty wheat produced in the United States.

A study of the published records of carlot sales in Kansas City during the early marketing season of 1926 showed losses caused by smut discounts, at that point alone, were \$99,600 in July, \$122,700 in August, \$29,123 in September and \$20,787 in October. The lower amounts during September and October were, of course, due to the fact that less wheat was handled in these months.

The records show that the losses due to smut

of the grain and this seems to be quite unavoidable.

The newer method of treating smutty wheat is by washing it in specially designed grain-washing machines. By this method, if the washing is done in the proper manner, the loose smut spores are almost completely removed from the wheat kernels but many of the hard smut balls remain in the wheat. To remove completely the smut, including the smut balls, it is often necessary first to scour the wheat to break up the smut balls, and then to wash it to remove the smut spores. Here again, liming before scouring aids in producing best results.

When wheat is scoured the scouring increases the test weight of the wheat; liming before scouring tends to reduce the test weight. Washing wheat always increases the moisture content of the wheat and reduces its test weight per bushel. It is a violation of the Food and Drugs Act to add more moisture to wheat than is absolutely necessary for a good job of washing. To add moisture to wheat that already has a natural high moisture content increases the danger of such grain going out of condition in storage and during transportation. To keep within the law, and to avoid lowering the grade, because of an increase in the moisture content or a lowered test weight after washing, and to make washed wheat safe for storage and transportation, many of the most successful operators remove the excess moisture in the wheat, after washing, by drying the grain in commercial driers. When efficiently performed the liming



WASHING SMUTTY WHEAT IN A TERMINAL ELEVATOR
case Survey, United States Department of Agriculture, that in 1926 the reduction in yield of wheat in the United States because of smut amounted to more than 33,000,000 bushels.

PERCENTAGE OF SMUTTY WHEAT RECEIVED AT SOME IMPORTANT MARKETS

(Less than 1 per cent not marked except in one instance)
July-Oct.

	1923-24	1924-25	1925-26	1926-27	1927
	Pct.	Pct.	Pct.	Pct.	Pct.
Astoria, Ore.	52	69	38	55	47
Bozeman, Mont. . .	12	19	17	34	47
Denver, Colo.	21	25	36	25	19
Des Moines, Ia.	8	7	15	15	*20
Detroit, Mich.	11	11	8	11	
Duluth, Minn.	5	17	15	14	
Indianapolis, Ind. .	3	6	2	6	22
Kansas City, Kan. .	8	11	10	22	14
Kearney, Neb.	4	35	54	28	12
Lawrenceburg, Ind. .	6	37	38	44	19
Lincoln, Neb.	12	26	20	9	
Los Angeles, Calif. .	20	12	15	18	16
Louisville, Ky.	5	9	2	4	11
Ogden, Utah	14	21	29	33	31
Oklahoma City, Okla. .	1	1	1	5	1
Omaha, Neb.	14	26	40	40	25
Philadelphia, Pa. . .	3	2	10	8	31
Portland, Ore.	45	60	30	42	40
Sacramento, Calif. .	6	9	12	12	24
Seattle, Wash.	35	41	24	28	32
Stockton, Calif.	26	11	6	19	6
Tacoma, Wash.	42	54	30	35	32
Toledo, Ohio	1	3	2	2	11
Baltimore, Md.	8	2	8	8	16

*July-September, inclusive.
†High proportion of Hard Red Winter wheat from western states.

Practically all of the wheat which leaves the farms is used for milling. Smutty wheat can not be used for milling until the smut has been re-



TREATING SEED WHEAT IN BARREL TREATER MADE FROM 30-GALLON OLD DRUM

discounts averaged over \$10 per car for all wheat handled at that market. Since only 25 per cent of the wheat was smutty the losses per car for the smutty wheat alone averaged over \$40 per car. Similar losses were experienced at all the other terminal markets, the extent of total loss at each depending principally on the volume of smutty wheat received. Since the discounts for smutty wheat are always charged back to the farmers at the time they sell such wheat, the losses fall on them rather than on the dealers and millers.

TREATMENT OF SMUTTY WHEAT IN ELEVATORS AND MILLS

Two methods of removing the smut are commonly used. In the older method the wheat is scoured by specially designed scouring machines. Lime or "plaster" is often mixed with the wheat before scouring. The lime assists in the abrasive action required to remove the smut spores from the wheat kernels. When wheat is scoured, not only are most of the smut spores removed but also a considerable portion of the outer bran layers of the wheat kernels is removed. The scouring method always results in a loss in total weight



A COMBINATION COMMUNITY PORTABLE DISC CLEANER AND COPPER-CARBONATE WHEAT-TREATING MACHINE

scouring, washing, and drying of smutty wheat considerably enhance the market and milling values of such wheat.

WHEAT SMUT A FUNGUS DISEASE

The diseased head of smutty wheat can first be recognized in the milk stage. It has a dark, opaque green color, instead of the yellow green of the healthy head. The flowers of the diseased head never emerge to cover it with the dangling yellow pollen sacks which are characteristic of the healthy head. The mature diseased heads are a pale ashen color, as compared with the rich yellow of the healthy ones, and the spikelets stand away from the center stem of the head more than do those borne on the healthy plant. The greatest difference is in the kernel. In fact, instead of a kernel of wheat, a smut ball is produced. These smut balls are thick, short and dark in color. If these are crushed, a great mass of powder having a characteristic stinking odor will be disclosed. Under the microscope, this powder can be seen to be composed of a mass of spores.

Put smut spores on a grain of wheat seed and the disease is almost certain to appear on the plant. After planting, the germ-tube forms on the wheat kernel and this grows through the young wheat plant as it emerges from the seed. Once within the wheat plant, the fungus grows with the plant, just behind the growing point, keeping pace with the growth until the head is formed. At the time of the formation of the head, the fungus suddenly takes on new life and grows rapidly through the tender tissues of the young head. It fills the young forming seed and when

the heads are mature the fungus has produced a new crop of spores within the seed.

Most farmers have noticed that, under certain conditions, there is more smut one time than another. This had led to the belief that weather conditions cause smut. It is true that cold, wet weather following seeding favors the development of smut. It is possible that this is in part due to the fact that cold weather is unfavorable for the growth of the wheat. Cool weather also favors the development of the fungus.

How to these smut spores get on the seed? Since the smut is enclosed in the shell of the seed coats, it takes some force to break this covering. This force is supplied in the threshing machine. Often a machine is obscured in a cloud of black dust from the mass of smutted grain. Every kernel of wheat passing through the threshing machine becomes plentifully covered with spores, which are held by the hair on the seed. Moreover, the soil may become heavily infested with the smut spores. Even healthy seed, if planted in such soil, will become diseased. Fortunately, soil infestation seems to be limited to certain regions. It is most common in the Pacific Northwest.

COPPER CARBONATE REDUCES LOSS BY SMUT

A new era in the control of stinking smut of wheat began in 1917 when an Australian investigator announced he had successfully prevented this disease by dusting seed wheat with copper carbonate. This treatment not only killed seed-born spores of the fungus which causes this disease, but did not affect germination of the seed wheat. The United States Department of Agriculture, in co-operation with the California Experiment Station, tried this method and found it more satisfactory than either the copper-sulphate-lime or formaldehyde treatments, formerly used.

Realizing the importance of this discovery, plant pathologists throughout the wheat-growing sections of the United States began active research in order to determine whether or not copper carbonate would give satisfactory control under varying local conditions. As this work progressed, and it was found that the treatment was an improvement on the methods formerly used for disinfecting seed grain, active effort was made to bring it into common use.

As a result of the experience gained from practical farm trials in the Western States and from experiments of plant pathologists, knowledge concerning this treatment and convenient methods for its application grew rapidly. It was found that, in addition to being an effective agent for killing the smut spores carried on seed wheat, the copper carbonate treatment has certain other advantages.

- (1) It is cheap.
- (2) It is easy to apply.
- (3) It does not injure the seed even when sown in dry soil.
- (4) Treated seed can be stored without injury.
- (5) Copper carbonate protects stored grain from weevils. Rats and mice prefer untreated stored grain.

DIRECTIONS FOR USING COPPER CARBONATE

Instructions for using copper carbonate are given in Miscellaneous Circular No. 108, Copper-Carbonate Seed Treatment for Stinking Smut of Wheat, published by the United States Department of Agriculture, as follows:

"Thoroughly clean the seed with a fanning mill to remove smut balls. Use two to three ounces of copper carbonate per bushel of wheat. The copper carbonate must be evenly spread over every kernel. This is best done by thoroughly mixing the grain and the dust in a tight commercial or home-made mixer. If the barrel mixer is used, treat one bushel at a time, turning the crank at

a moderate rate of speed for about two minutes."

As copper is mildly poisonous, those using the dust are warned to work in a well-ventilated place and to wear a mask over the mouth and nose. Treated wheat should not be used for food or feeding purposes. As copper carbonate sifts into all working parts of the drill, it is desirable to turn the shaft with a wrench to free the feed wheels after a drill which has been used for seeding treated grain that has been standing over night. This loosening avoids possible twisting of feed shafts and breaking when the drill is thrown into gear. The feed box bearings should be oiled frequently.

BUSINESS INTERESTS CAN HELP

Since stinking smut of wheat not only means reduced yields in the field, but discounts on the markets, the grain trade, millers, railroads, bankers, civic associations and chambers of commerce, as well as individual local business men can well afford to join with farm organizations and with county agents and other representatives of the state colleges and the Department of Agriculture in work designed to reduce losses. In fact, the success of this program up to the present time has been in large measure due to the fact that these groups have given their whole-hearted support to the work.

Window displays in the country towns; exhibition of posters; distribution of brief circulars as envelope enclosures by local business men; timely references to seed wheat treatment in local advertising material; prizes offered to school children in essay and poster contests; meetings sponsored by local organizations of business men; trucks on which seed-treating machinery can be carried about the county for treatment at cost; installation of seed-treating machinery by elevators, the use of which is given to farmers at a cost—all of these things will help.

Texas Terminal House Aids Export Trade

Port Arthur Elevator & Dock Company's Plant Is Important Part of Harbor Facilities Which Helped Rapid Growth of Port Arthur

By H. W. JEFFRIES

WATER is indispensable to life. Without it in the diet no matter how complete this diet might be otherwise death would follow. Just as it is vital in the life of the individual, so it is of greatest importance in the life of the nation. If a country is without navigable waterways for interstate and foreign transportation of merchandise, it is without a cheap means of conveyance and a terrific struggle takes place to keep

life in its commercial body. The traffic of the world follows the water; the heaviest centers of population have always been the seaports. Texas has many advantages in the way of water transportation and harbor facilities not enjoyed by other states.

A Texas town that grew from an unimportant village of a few dozen scattered inhabitants in 1897 to a city now numbering 53,402, according to



E. E. SAILS, SUPERINTENDENT

figures given out recently by the Chamber of Commerce, is Port Arthur. This phenomenal growth is due to development of its harbor facilities which came with the exploitation of the town as an oil refining center.

Of interest to elevator and grain men is the terminal house of the Port Arthur Elevator & Dock Company. This house, known as Elevator "A," has a capacity of 450,000 bushels, and was erected in 1898. It is of crib construction covered with corrugated iron sheathing. The engine house and drier are made of brick. Located on the Sabine-Natches Canal, which gives them a deep sea outlet to the Gulf of Mexico, and on both the Kansas City Southern and Southern Pacific Railroads, they are in a position to offer satisfactory export service to growers and shippers. They do a strictly export



PLANT OF THE PORT ARTHUR (TEXAS) ELEVATOR & DOCK COMPANY

February 15, 1928

business and handle an average of 3,500,000 bushels yearly.

The engine room houses a steam engine of 200 horsepower, which supplies power for the elevating machinery and conveyor belts. Steam for the modern drier is also generated here. This drier is located at the rear of the house and has a capacity of 1,000 bushels hourly.

E. E. Sails, the superintendent, says they can unload eight carloads hourly. On the receiving side of the house are two tracks each accommodating two cars with eight receiving sinks below. If cleaning is necessary it is handled by two Monitor Separators. Electricity is used for lighting and for power on the car pullers. Four Clark Automatic Power Shovels greatly expedite the unloading process. Fairbanks, Morse & Co., is well represented with eight hopper scales, each of 72,000 pounds capacity.

On the water or shipping side are four marine conveyors, each using a 40-inch Webster conveyor belt 150 feet long. When operating at full capacity each one can handle 12,000 bushels hourly. There are also four marine legs with a combined capacity of 28,000 bushels hourly. The view on Page 494 of this elevator shows the *Volga* taking on a cargo of wheat for Italy. Incidentally, this was one of the largest consignments of grain ever to leave this port.

Fire protection is a matter that has been given grave thought by the owners of this house and in 1923 a complete system of sprinklers was installed. Their water mains are independent of the city

supply and with their own 100,000-gallon tank some 215 feet high, a pressure of 100 pounds is constantly kept in the mains. In addition there are numerous hydrants located around the build-



GRAIN DRIER IN THE REAR OF THE PORT ARTHUR ELEVATOR

ing and on the docks for use in case of emergency. At the present time this elevator is being operated under lease by the Texarkana & Fort Smith Railroad Company, a Texas line of the Kansas City Southern.

finally, and proved, that a broad liquid hedging market, such as the farmer needs, cannot be broad and liquid without competent speculation. That point settled, complaint is directed against short selling. Perhaps such a highly involved subject will hold the attention of a Congressional committee during an entire session of Congress. Ultimately it will be found, and so reported, that short selling is absolutely essential to the maintenance of a futures market.

A few years ago all the complaints against the grain exchanges were weighed and considered and a very effective and comprehensive law was enacted to cover the entire situation. It was to bring all controversy to an end. The law is the grain futures act which places the exchanges under the direct supervision of the United States Department of Agriculture. It is in many respects an excellent law, and the exchange and the Government have worked in close harmony in its intelligent enforcement. No additional Federal laws are needed and such conclusion, it is confidently believed, will at length be reached by all. Then the exchanges, like the railroads, will enter into a period of more rapid progress, to the benefit of farmer and city man alike.

What is the status of the grain exchange today? What of the future? Without exaggeration it may be stated that the grain exchange is in a fundamentally stronger position than at any time in 20 years. One by one the socialistic doctrines of law makers have been rejected. One by one the radical farm leaders have slipped back into obscurity. A new wave of sentiment, a new tendency, is rapidly developing in America. Perhaps it may be traced to the fact that this is a nation of business. Even the laborer feels himself somewhat of a business man. He may, and often does, own a few shares of stock in something. Like the average American citizen, he wants to see continued national progress. Stock and commodity exchanges are now recognized as a vital necessity in our commercial life. Nothing has been even suggested that might replace the present system.

There was a time when oratory and colorful arguments turned the course of events. That day has passed in America. This nation of business is hungry for facts and is using only facts as its commercial guide. And in every instance where the grain exchange has been on trial in recent years, the facts that finally stood out above the sparkling oratory proved indisputably that the present marketing system is fundamentally sound and economically valuable.

Grain exchanges are improving and perfecting their machinery year by year. They are definitely on the upgrade.

CONTRACT AWARDED FOR 80,000 TON GRAIN ELEVATOR IN ARGENTINA

By JOHN H. D. BLANKE

According to *The Engineer* of London, the Buenos Aires Great Southern Railway has decided to proceed at once with a big plan for the improvement of the grain handling and storing facilities at Ingeniero White, Bahia Blanca, in the Argentine Republic. The work to be undertaken will cost a little over 1,000,000 pounds, or about \$5,000,000, and will include the erection of a huge reinforced concrete granary, having a capacity of 80,000 tons of grain, an extensive unloading plant capable of dealing with 24 45-ton railway trucks at once, and an elaborate system of mechanical belt conveyors, by means of which it will be possible to load grain to ships at the rate of 6,000 tons per hour. The whole contract, with the exception of certain railway work and foundations, will be carried out by Henry Simon, Ltd., of Manchester, England. All railway cars will be handled direct as they arrive, eliminating switching, rehandling, etc. When the plant is completed, eight ships can be loaded at one time. The whole plant will be electrically driven; nearly 150 individual electric motors, totaling 10,500 horsepower will be used. A special system of signalling to facilitate the rapid working of the granary is to be installed.

The Grain Exchange—What Has It Done?

Prominent Grain Man Asserts Exchanges Are Definitely on the Upgrade
Despite Ill Advised Efforts of Enemies in Political Circles

By SAMUEL P. ARNOT, President Chicago Board of Trade

THE Chicago Board of Trade will be 80 years old in April. It was organized in 1848 for the purpose of improving methods and practices in the marketing of grain. In the year 1856, the first for which records are available, receipts of grain in Chicago amounted to only 23,000,000 bushels. In recent years the yearly receipts have totaled nearly 400,000,000 bushels. Since 1856 the volume of grain received in Chicago has totaled 15,000,000 bushels. Shipments in the same period have been approximately 10,000,000,000 bushels.

Bank balances of members of the exchange amounted to less than \$1,000,000 in that first year of statistical records. Today it is estimated that members of the Chicago Board of Trade maintain balances in Chicago banks totaling some \$200,000,000. Memberships in the exchange once sold for as little as \$10 each. In recent months they have brought more than \$10,000 each. This, in brief, pictures the growth of the largest commodity exchange in the world.

During the first quarter century of the existence of the exchange, the Chicago Board of Trade took leadership in most of the civic affairs and commercial projects centering in Chicago. Later came other enormous financial and industrial groups—railroads, steel mills, packing houses, and immense manufacturing. In the natural evolution of business this civic leadership was divided among the various large interests. But the exchange has continued to be a powerful influence in the commercial life of the city. It has been estimated that 30,000 persons are directly and 100,000 indirectly, given employment by reason of the Chicago Board of Trade.

By the very fact that the Chicago Board of Trade is the central grain market of the entire world, it has been the target of all attacks by those who oppose the present system of marketing. In virtually all cases such attacks have been purely political. They will continue, probably in less and less degree, just so long as the fortunes of the farmer rise and fall with the weather, with crop conditions, and with production and consumption in America and abroad.

To the man familiar with present day marketing methods one fact stands out clearly: If the grain

exchange were not serving an economic purpose, and if it could be replaced by a safer and more economical method, it would have been destroyed many, many years ago when the first troupe of excited farm leaders stormed congress because prices had slumped. Like subsequent groups they finally abandoned the effort when shown that the exchange does not make the price but simply registers the price; that the actual toll on grain between producer and consumer is smaller than that which exists in the marketing of any other staple farm product. This fact, in the last analysis, has been and will continue to be the salvation of the exchange. The exchange markets grain at smaller cost than obtains in any other system ever devised. Hence all signs point to the continued growth and importance of the exchange.

Simply justifying its existence and preventing its destruction has not meant victory for the grain exchange, however. The political attacks, often used for the sheer purpose of attracting attention of the rural voters, have taken a heavy toll. This exchange and the other American grain exchanges have been drained time and again in carrying on the fight necessary while proving its case. Complaint has sometime been heard that the exchanges have not progressed as rapidly as some other industries. If this be true the cause may be traced directly to lawmaking bodies. Agitation has kept the markets in a state of uncertainty for 30 years. Harm caused by laws actually passed has been negligible compared with the devastating effects of periodical political attacks. The best efforts of the exchanges and millions of dollars have been required to ward off such attacks. Such money and such effort should have been put back into the machinery of marketing. Railroads suffered from lack of progress during their long period of political attack and domination.

What are the usual complaints against the exchange? They vary almost with the seasons. Often the complaint is that the exchange makes prices too low or too high. After such a charge, always a sensation, the leading economists, agriculturists and government experts step in and show that the claim is ridiculous. Then the charge of too much speculation may be made. But it is pointed out,

Canadian Crop Sets New Records

Use of the Reaper-Thresher in Harvesting and of the Motor Truck in Transporting Grain Was Primary Factor in Moving 1927 Crop

By E. L. CHICANOT

THE 1927 crop season in Canada has been a remarkable one in many respects. It has seen the breaking of old records and the establishment of new ones. In this period what has for some time been the accepted order of things in grain movement has been somewhat disturbed. While the Canadian wheat crop was not a record one, falling short, according to the estimate of the Government, of the bumper harvest of 1923, one province, Alberta, did make crop history, reaching a higher figure in production than it had ever done before and establishing new world records for yield over its entire extent and in individual acreage outturns. In a season that was much behind the average new records have been made in the expedition of grain handling, transportation, and shipment with a crop of more than normal volume.

The official estimate of the total Canadian wheat yield is 444,282,000 bushels, as compared with 474,199,000 bushels in 1923. Of the total, the Prairie Provinces are estimated to have accounted for 418,992,000 bushels, or nearly 95 per cent. Manitoba was responsible for 31,507,000 bushels; Saskatchewan 208,966,000 bushels; and Alberta 178,519,000 bushels. Saskatchewan, which consistently accounts for more than half of the total Dominion wheat crop, this year falls short of the 50 per cent proportion. This is accountable to the extraordinary crop which has been produced in the province of Alberta.

Alberta created a new provincial record with a total yield of 178,519,000 bushels, as compared with 166,800,000 bushels in 1923, the previous high mark. The average yield over the 6,251,000 acres sown to

All the machinery in operation, however, responded in splendid manner to the crisis, with the result that the movement exceeded in briskness normal years, and fresh records were made all the way down the line.

There were two primary factors which were in 1927 for the first time a big influence in western Canadian crop movement, mitigating the situation



RAILROAD YARDS AT CALGARY, WHERE THE GRAIN MOVES WESTWARD

right at the source of the flow. These were the more general use of the reaper-thresher in harvesting operations in many sections of the territory and of the motor truck in the transportation of grain from the farm to country shipping points. The 1927 season saw the opening of what would seem to be the real era of the reaper-thresher in western Canada, there being some hundreds in operation in comparison with 180 in the entire ter-

same railway facilities as 20 years ago. Hundreds of millions of dollars have been invested in terminals, yardage, grade reduction, double tracking, locomotives, etc., solely by the increasing grain traffic in a brief hectic season.

New pinnacles of achievement were reached by the Canadian railways in the season just concluded. On October 20, following the rush of grain from the farm to the railway points, grain handled at Winnipeg by the Canadian Pacific Railway totaled 4,356,000 bushels, a new record for all time, which was beaten the following day when 4,454,000 bushels were marketed. Either figure is greater than the entire volume of western Canadian grain production in 1887. The total marketings on Canadian Pacific Railway lines for the six days ended October 21, were 19,945,000 bushels, constituting an aggregate which had never previously been reached in any one week. At December 1 this railway had moved 137,544,259 bushels of grain eastward to the head of the lakes, a volume approximately equal to that of the previous year in spite of a later commencement, and which left no doubt of a substantially greater volume being handled to export outlets before the end of the year.

Transportation beyond the head of the lakes to Montreal was similarly carried on at a record rate. When navigation closed at the Gulf Ports a total of 168,790,595 bushels of grain from the 1927 crop had been carried down the Lachine Canal to Montreal, as compared with 120,583,313 bushels in 1926, and 133,706,466 bushels in 1925. This is testimony to the equal efficiency of this link in the chain of transportation in meeting something of a crisis in grain movement.

Canadian ports were similarly called upon for extraordinary effort and met the need for expedition in fine fashion. Montreal earned fresh laurels as a point of grain export, and surpassed itself in clearing grain which was brought to it down the canal. On October 20 orders on hand for grain at the port aggregated 7,250,000 bushels, this fig-



MONTREAL ELEVATORS FROM THE LAND SIDE



TYPICAL CANADIAN ELEVATOR TOWN

wheat has been 28.6 bushels, as compared with 14.4 bushels to the acre in Manitoba, and 16.1 bushels in Saskatchewan. Alberta created a world record in 1915 when she produced an average of 31.12 bushels to the acre over 2,138,031 acres. The average yield this year over a much larger scale is undoubtedly also a record. What is believed to be a world record is a production of 93 bushels of wheat to the acre in the Peace River country. There are several reported yields in excess of 80 bushels to the acre, many higher than 70 bushels, many more between 60 and 70 bushels to the acre, while average yields between 50 and 60 bushels to the acre were quite common.

Prolonged wet weather on the prairies retarded harvesting and threshing to a considerable extent, the grain moving from the farm to country elevator storage quite a little later than usual. This resulted in the necessity for greatly accelerated action in moving to export outlets what was in itself a crop of more than ordinary proportions.

ritory the year before. All accounts report marked economy from their use, but more especially they were invaluable in getting the grain more rapidly to market. This same problem was speeded up by the more general use of motor trucks, which are today a practical vehicle of transportation owing to the extensive good road building which has been going on in western Canada. Following the 1927 harvest they were ordered in hundreds and a famine resulted, with dealers being quite unable to satisfy the demand.

In the next stage of transportation the railways performed their annual miracle moving the more voluminous crop with the same apparent ease as in former years, but creating new records in order to do it. It is astonishing to discover the development which has taken place in transportation facilities and equipment in order to keep pace with the increasing grain traffic. It is stated that except for the grain movement all the traffic in western Canada could be moved with practically the

ure far exceeding anything previously experienced in the history of the port, being apportioned to 45 vessels. Activity was continued at only a less hectic rate. By the time navigation had closed on the St. Lawrence, Montreal had seen the shipment of some 195,000,000 bushels of grain during the year, a fresh record by a wide margin. In 1926 a total of 135,897,882 bushels of grain was handled at the port and in 1925, the port's previous record year, 166,212,335 bushels. Montreal's accomplishment in the 1927 season further consolidated its position as the greatest point of grain shipment in the world, the Canadian Gulf port sending out almost three times as much grain as the seven largest grain ports of the United States combined.

In spite of Montreal's new record, a greater volume of grain than ever before passed on to the port of Quebec, which in 1927 first sprang into prominence as a possible exporter in volume of western grain. In September the Canadian Railway Board equalized the eastbound freight rates

February 15, 1928

so as to put the port of Quebec on a competitive basis with Montreal. This order provides that grain shipments from points west of Toronto be shipped to Quebec at the same rate as to Montreal, and this can mean nothing but a substantial growth both in grain exports through Quebec and in the port's facilities. Though the board order came into effect too late to alter the flow of grain to any extent, it is significant to note how Quebec's grain exports have mounted.

Before the end of November a total of over 6,000,000 bushels of grain had passed through Quebec port and flowed overseas, and before the close of navigation 9,000,000 bushels had been handled. In addition the Harbor Commissioners anticipated the delivery by the end of the year of 2,500,000 bushels for domestic delivery, making the probable handlings of the port in the neighborhood of 11,000,000 bushels. This is noteworthy when it is considered that Quebec never featured as a grain exporting point before, the total handled at the port in 1926 being 5,908,000 bushels and in 1925, 2,556,000 bushels. The new record is, however, not expected to stand long. This is viewed merely as the commencement of the grain movement to Quebec, which is expected to swell steadily in the future.

Possibly more significant has been the activity at Vancouver, where similarly new records have been created. By reason of the equalization of grain rates, ordered a couple of years ago by the Canadian Railway Board, east and west, the logical movement of the western Canadian crop breaks at a point just over the Alberta boundary in Saskatchewan, and it is more economical to ship the entire crop of Alberta and part of that of Saskatchewan by way of the Pacific Coast than move it on to the head of the lakes and the Gulf Ports. A greater amount of western Canadian grain, since the order, has been moving to Vancouver, as increasing storage and handling facilities made possible the reception of a larger volume. While only 1,347,337 bushels of grain were handled at Vancouver in 1921, a total of 53,240,514 bushels was reached in 1924.

This season, by reason of the extraordinary crop in Alberta, the movement of grain to Vancouver has been heavier than ever. During the month of October alone, following the rush of grain from the farms, the railways moved 6,316 cars to that port. At the first of December the Pacific port had exported 10,555,749 bushels of grain and had in storage 5,660,195 bushels. A total of 6,000,000 bushels of grain was booked for November loading at the port, 20,000,000 bushels for December, and 10,000,000 bushels for January. One hundred ships were expected to load full cargoes of grain from Vancouver during December alone, and more during January. Port authorities predict that a total of 75,000,000 bushels of grain will be shipped from Vancouver during the 1927-28 crop year, exceeding the previous record of the port by some 50 per cent.

Though overshadowed to some extent by the bumper harvest of 1923, the Canadian crop of 1927 made history in many respects. It saw an exceptional uniformity of yield and consequent general sharing of benefits, with resultant optimism of outlook. It demonstrated more forcibly than ever through the Province of Alberta the great productive possibilities of western Canada through yields which had no parallel. Being made available later than usual for shipment, it threw into greater relief the incomparable efficiency of the Canadian transportation chain and of the Dominion's great ocean terminals. The 1927 crop established another landmark in Canadian grain history to remain in the memory of those of 1915 and 1923.

OHIO SPRING WHEAT A RISK

Spring wheat is an uncertain crop in Ohio but produced remarkably good yields in tests on most of the county experiment farms of the state last year, according to M. C. Bachtell, of the Ohio Experiment Station, in charge of these farms. The

rainfall and temperature in 1927 were exceptionally favorable to Spring wheat. The yields on the experimental plots averaged above 20 bushels per acre, and were as high as 28 bushels on one farm. "These exceptionally good yields may create undue enthusiasm for Spring wheat", so Mr. Bachtell states that, "prior to 1927 the average of 61 Spring wheat crops grown on the nine farms in three to nine years was only 13.8 bushels per acre. Of these crops 22, or more than one-third, were less than 10 bushels per acre, and seven were less than five bushels. Only 12, or one-fifth, of the crops were above 20 bushels."

Only in rare seasons when temperature and rainfall are favorable is Spring wheat a paying crop in Ohio. It is not a consistent money maker.

NEW RIVER-RAIL TRANSFER HOUSE AT CAIRO

River traffic is again threatening to come into its own. It has become a political topic as well as a problem for the more serious element, such as business men situated in territory which may benefit. It is interesting to note that certain of the railroads have given definite consideration to the subject also, and in the following excerpt from a speech made January 9 before the New Orleans Association of Commerce, by President Downs of the Illinois Central Railroad, is the gist of what he had to say relative to the Government barge line:

"There are some persons who accord inland waterways much greater importance in the national transportation system than they have now or have had



NEW GRAIN TERMINAL AT CAIRO, ILL.

since the development of railroads got well under way. I feel no hostility toward the development of inland waterways. If their development will enrich and prosper New Orleans and the Mississippi Valley, I am in favor of their development, because our interests are here and throughout the valley, and their gain is ours.

However, I cannot believe that any business man, of New Orleans or elsewhere, would want to have inland waterways developed to the detriment of the one agency which is and must continue to be his main reliance for transportation. Some of you are in a position to take advantage of inland waterway transportation. Others of you are not. But all of you are users of railway transportation, even to complete the service that is partly performed by inland waterways. An inland waterway is rarely able to perform a complete transportation service. It must usually be supplemented by railway transportation at one end or the other, and not infrequently at both ends. Inland waterways cannot stand alone. They can be effective only if there are good railroads in connection with them, and upon the railroads must the majority of New Orleans and all other business men rely as their main dependence for transportation.

The experiment which the United States Government has been making for the last 10 years with barge-line transportation on the Mississippi River has had the active co-operation of the Illinois Central System. I believe that shows our good faith in the statements that have been made over and over again that the Federal barge line is an experiment only. If the Government is able to demonstrate that the operation of barges on inland waterways is a commercial success, I am in favor of having it carry out its announced intention of turning its barges and towboats over to private ownership, and it seems to me there could be no surer proof of the barge line's success than for practical men with business experience to seek to buy it. However, it is not within my knowledge that even a single offer has been made to buy the Federal barge line. Until the Government finds a buyer, there are only two courses open for it to pursue without a complete reversal of policy. One is to continue the experiment until its success is demonstrated by the test of its salability. The other is to give up the effort and abandon the experiment.

The experiment is now in its tenth year, but I am not pressing for an announcement of the result. I am willing for it to be continued to the end. However, while it is continued, I am opposed to any move to put the United States Government permanently in the business of barge-line operation. It seems to me that the proposal to authorize a tenfold increase in its so-called capitalization is such a move.

Another detail in hooking up rail facilities with river traffic in the Middle West was the recent construction on the site of the old Cairo, Ill., elevator of a grain transfer house. This will be used for loading barges from cars for the Mississippi-Warrior Service. The Halliday Elevator Company, of Cairo, Ill., is operating the new facility, having commenced to do so late in 1927, under the direction of J. B. Gillespie, superintendent.

The grain transfer has a capacity of 10,000 bushels per hour, which enables it to fill two barges of 70,000 bushels' capacity each 24-hour period. At the time operations were commenced there was already a large quantity of grain, including both wheat and rye, at Cairo awaiting loading upon barges. This was export grain. The new trackage made necessary by this facility was constructed by the Illinois Central, and the building and equipment were erected for the Mississippi-Warrior Service under the direction of Walter F. Schultz, consulting engineer, of Memphis, Tenn. This grain interchange terminal is in no sense a storage elevator, but is merely a means of transferring grain from cars direct to barges.

The plans provided for a substantial frame building, containing a power shovel, operated by a 15-horsepower motor. A metal hopper bottom has

been installed a 30-inch five-ply rubber belting is used for the conveyor which leads to the barges. This is housed under three-ply ready roofing and a 25-horsepower motor constitutes the means of operating the conveyor.

Twelve-inch spouts are provided at the river end of the transfer facility, and a platform, on piling is equipped with a hinged gangplank with cross cleats. The structure has been made as strong as consistent with expenses involved, with a view toward permanency and efficient operation.

BOOK ON CORN SCIENCE

Frederick D. Richey, corn specialist in United States Department of Agriculture's Bureau of Plant Industry, is author of "Corn Breeding," a 64-page booklet bringing the discussion on this subject up to date. It contains suggestions valuable to farmers rather than to elevator operators, but for those grain men who wish to keep posted on grain science, the work is a contribution which should not be overlooked.

Corn breeding has been defined as a systematic effort to improve the crop by controlling the parentage of the seed. The control of the parentage is exercised in practice by selection, and the different systems of breeding for increased yield are considered, according to the methods of selection followed, under the headings of mass selection, ear-to-row selection, hybridization, and selection within selfed lines. Corn breeding usually has as its objects an increase in the acre yield of corn marketable at the elevator or mill. The discussion, therefore in "Corn Breeding" is concerned primarily with attempts to increase the yield by selection for general vigor, productiveness and quality. Breeding for resistance to some specific disease or condition is but a special application.



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Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., FEBRUARY 15, 1928

HEAD-OF-THE-LAKES STORAGE

ELEVATORS are the lungs of the grain trade. If they are of deficient capacity, agricultural progress is stifled, mill operation deflated, and the elevators themselves liable to become victims of a diverted grain traffic. All of these ills are prevented by the generous consideration which Canadians customarily give the storage problem.

The world's heaviest concentration of grain storage facilities soon will be expanded to an even greater capacity. With the additional terminal elevators definitely decided upon or already under contract, the twin ports of Fort William and Port Arthur will have a storage capacity of 92,665,000 bushels. Even the present capacity of 73,000,000 bushels is greater than at any other point on the globe. A capacity increase of 20,000,000 bushels, or 27 per cent, in one year represents a rate of increase that is nothing short of phenomenal. This storage progress reflects the tendency, long evident in the Dominion, to anticipate the demand for grain handling facilities, rather than to keep barely abreast of, or a step behind requirements.

THE "CONTRACT" HOUSE

HAILED as "an entirely new type" of grain company, an elevator has opened for business downstate in Illinois, as a "contract house." It is financed by farmers and to that degree is a co-operative. Contracts of \$200 each were sold to the grain growers, but the management is wholly in the hands of one man who is not responsible to the usual

board of directors. The understanding is that a small charge per bushel of grain handled will be made until the full amount of the subscriptions have been paid in to the company.

Just why this should be hailed as a radical departure in elevator management is difficult to see. It is simply a case of a co-operative group doing its best to get the advantage of the concentrated responsibility which the independently managed house has. We hope the venture is successful.

A meddlesome board of directors has meant premature gray hair for more than one capable co-op manager. He has had to play politics with grain producers who suddenly have gone in for the fad of grain marketing. Their advice usually is a handicap. Here is a co-op group, gentlemen, with enough self-control to entrust the management of their enterprise to one individual. That's a good start.

BILLS PAYABLE

REPRESENTATIVE Haugen is no piker. In his farm relief bill presented to worry the \$10,000-a-year legislative sages in the lower house at Washington, D. C., a revolving fund of \$400,000,000 is proposed. Senator McNary, who evidently has gone to one too many White House breakfasts, has trimmed his proposed revolving fund down to \$250,000,000. (Our own suggestion is a revolving fund of \$9,999.98, all of which is to be drawn from Mr. Haugen's revolving salary.)

There is further evidence that Senator McNary's hob-nobbing with the president has had some effect on his farm relief ideas. The Haugen Bill says the proposed Federal farm board "shall" begin operating on the nation's grain prices when certain facts are found; the McNary Bill says it "may" do so. All the way through the Senate bill, in fact, Mr. Coolidge's suggestions may be read between the lines.

This will not do much good. The equalization fee is the backbone of both the bills, and it is that feature which President Coolidge, with his veto ruler held behind his back, has scolded about in no uncertain terms.

LOAFING OR GRINDING FOR A SIDELINE?

WE HAVE yet to see or hear of the country elevator which does not have its slack season. When farmers in any given community have hauled the great bulk of their crops up the elevator driveway, additional grain business cannot be manufactured out of thin air. One by one, the extra help is laid off, and it is in the following period that the acid test is applied to modern country elevator management.

It is no longer necessary that slack season time be wasted. It is true that after a season of rushing business, a good opportunity offers itself to overhaul machines, repair the plant generally, and to give the force a chance to balance up some of the overtime expended.

But it is also true that the greater part of the slack season, once the repairs and overhauling are completed, may be turned into a busy season for the sideline end of the business. After the crop is in the farmers have money to buy feeds, fertilizer, seeds, salt, twine and furthermore they have the time and inclination to lay in their supplies for the following months. The elevator with feed grinding equipment and a full line of sideline supplies to retail, stands prepared to cash in on this situation. Overhead expense continues in busy season and slack months alike. Elevator profits continue as regular monthly entries only in the country elevator with a sideline business.

Sidelines not only pay a profit on the time and money invested in them, but actually attract grain business. Farmers often will go miles out of their way to trade at the elevator which has the best in grain-grinding apparatus to put at their disposal. Friendly contacts gained through sidelines bring the farmers back for the main line business at harvest time.

"WHAT A WHALE OF A DIFFERENCE" A FEW MILES MAKE

ASAMPLE of wheat was taken from a farmer's wagon at Antler, N. D., where an international elevator operates on the boundary line. It was graded No. 1 Dark Northern and rated at \$1.09. The same sample was taken on the same day to the Canadian elevator at Lyleton, Man., where it was graded No. 2, and rated at \$1.19. More than 30 different samples were thus handled at different points along the border line in North Dakota and Canada. The average result of these tests showed that the Dominion elevators were paying on an average of 4.2 cents per bushel more than the United States houses, and that the average difference in freight rates was 2½ cents per bushel in favor of the Canadian farmers.

There is rather a strong reason, however, which prevents a wholesale migration of North Dakota wheat growers into Canada. That reason is that in spite of the lower gross price in the elevators this side of the boundary, the distance to a mill market is several times less on this side than in the Dominion. Technically, of course, the distance is about the same, but the Dominion wheat must hurdle a 42-cent tariff barrier enroute to Minneapolis. Nevertheless, there is food for thought in the foregoing figures, and any grain man can appreciate the sidelight they throw on certain angles of grading and freight billing.

Cynical seedsmen in the past have declared that size of seeds have little to do with the harvest results. Disillusion awaits such pessimists in a Norwegian report. The Oslo bulletin reviews an experiment in which four different sizes of Spring wheat, barley, and corn were sown. In all the trials the largest grain gave rise to the largest crops. The sowing of larger grain resulted in better germination, resistance to smut and finer quality.

EDITORIAL MENTION

Inspection at closing time is more important to any elevator manager than reaching home on the dot at six.

In spite of Mussolini's family-hold-back order on wheat, Italy ranked fourth last year as a taker of Canadian wheat.

Corn silks, once meaning smoking ammunition for adolescents, now are technically defined as the sheer fabrics manufactured from corn stalks.

Representative Dickinson, of Iowa, would afford greater tariff protection on corn or maize and on cracked corn. It takes a congressman to think up measures that *sound* well.

The United States produces about 63 per cent of the world production of corn, while Argentina, which worries the corn tariff crusaders, is second in world volume with 6 per cent.

Another \$10,000,000 has been set aside for the corn borer fight. Our skirmishes with this insect pest so far have brought about as much good as our warfare on the Nicaraguan "bandit."

During 1927, Montreal shipped almost as much United States grain as it did Canadian grain. If Mayor Thompson (need we say "of Chicago"?) gets wind of this, he will take it as a vindication.

Indian grain growers from reservations in three states met in North Dakota last month, and heard co-operative grain marketing explained. A heap big pool is impending, we suppose.

The largest single increase in grain exports from the United States last year was in rice, which increased 200 per cent over 1926 shipments. Rye and barley also show very large increases.

Prince Rupert is probably unique among the ports of the world in its 100 per cent "favorable" balance of trade. In 1927, this Canadian port imported nothing, but exported 134,550 tons of grain.

Elevators handle for shipment about 17 per cent of our national corn crop in a normal year. At least again that much, though, is handled by those elevators equipped to grind the corn into feed form.

Governor Sorlie sidetracks criticism of his management of the North Dakota elevator by asking that another house be built at Fargo. If nerve is the prime requisite of good management, the governor is in Class A.

It was suggested at the annual meeting of delegates of the Alberta Wheat Pool that the bushel measure be eliminated from the grain trade and a basis of 100 pounds be adopted in

its place. The Orient, it was pointed out uses short tons, England a 480-pound unit, while on the continent 224 pounds is the measure in vogue. We fail to see how adding a 100-pound volume to the already long list of grain measures would simplify matters.

Every state in the union produces corn, but about 85 per cent of corn elevators are located in the nine corn-belt states, Iowa, Illinois, Nebraska, Kansas, Missouri, Indiana, Minnesota, Ohio, Kansas and South Dakota, which produce two-thirds of the American corn crop.

The governor of North Dakota persists with his assertion that there should be a second state-owned terminal elevator erected at Fargo, N. D. There is no doubt that additional storage at that point would be advantageous, but whether or not it should be state owned is another matter.

The mayor of Davenport, Iowa, announces the new riverside elevator there, "capable of handling about 5,000,000 bushels," is practically complete, and that if enough barges are provided, Davenport will send annually 20,000,000 bushels of grain downstream. The river cities are waking up.

"Down with the middleman," cried the Russian peasantry. Now that the middlemen have been eliminated from grain trading, the Soviet officials apparently have more than they can do to collect wheat and corn direct. The absence of a single cog can jam the mechanism of any machine.

Montana's wheat production last year was sufficient to feed 8,000,000 people, in addition to that commonwealth's requirements for its own population. Over 65 per cent of its crop, as a rule, grades No. 1, and this distinction is a greater one than the volume mentioned, for only about 35 per cent of the average national crop grades No. 1.

Down in Missouri, in the neighborhood of Sugar Lake, 24 acres of bottom land are given over to growing "cob corn" from which cob pipes are made. The corn has a particularly large cob, suitable for the manufacture of pipe bowls. The kernel of this corn makes excellent feed when ground at nearby elevators, or it can be milled into a fine grade of white meal. The feed and the meal, however, are only by-products. The cobs are shipped to Washington, Mo., where a pipe mill is located.

A recent book about the Baltic Exchange, the London center where grain is bought and sold, tells of the age-old custom of sales-by-candle. This quaint method of marketing is not altogether a matter of past history, as crop sales in the English midlands still are conducted in this way. The procedure varies; in some cases a pin is stuck in a candle about an inch from the wick, and the last bid before the pin is reached ends the sale. In other cases, the candle is cut

in inch lengths, and each parcel of grain offered at auction is sold as the flame sputters out. Were it not for our unreasonable fire laws, the Chicago Board of Trade might go in for this dramatic grain sale method.

Two grain company executives, one from Kansas City, and one from Omaha, were among the twenty business men asked by *Nation's Business* for a 1928 forecast of business conditions, in order to give a cross-section view of opinion on this subject. If we can believe them, the grain trade and American business generally, has a prosperous 10 months ahead.

Colonel Tillinghast L. Huston, for eight years owner of the New York Yankees, American league baseball club, went down to Georgia five years ago to retire. He found leisure dull, so started reclamation of some abandoned rice lands, and now through rice and other produce, has a business developing which promises to bring in a gross income of around \$20,000,000 a year. From the Yankee stadium to the rice elevator is a long jump, but the colonel seems to have made it successfully.

It looks now as if the Interstate Commerce Commission will have well over 30,000 pages of grain-rate testimony to ship back on a through rate to Washington, D. C., pending its decision on the grain tariff structure. There is many a set of encyclopedias that contain fewer pages than 32,000, and if anything important is to come of this unwieldy, confused mass of conflicting testimony, the commission is to be complimented.

Wonder how much it costs to reduce a grain rate two cents, figuring the expense of an I. C. C. hearing.

The nice question of whether an elevator company or a boss scooper is the employer of grain scoopers in lake vessel-loading operations has been settled by the United States Employees' Compensation Commission. The commission declares the boss scooper is only a go-between and that the elevator firm is the real employer. For once, some one else beside the grain operator is dubbed middleman. Just what the importance, if any, of all this is, does not seem clear, but the decision must be of some consequence, as a whole column of details of it is printed in a recent issue of the *United States Daily*.

The rye situation must be a perplexing one for the Department of Agriculture. In commenting on the active rye demand in the past season, coinciding in a phenomenal way as it did with a large supply, the Government analysts, of course, could say nothing about the increase in demand presumably for illicit brewing purposes. But we suppose some training in being discreet has been afforded them by the enormous demand for California grapes in the last few years. They simply mention the growing demand for rye "feed-stuffs," or the increase in the per capita consumption of grape juice, and everybody is happy.

H. H. BINGHAM
Indianapolis

NEWS OF THE TERMINAL MARKETS

W. T. FRASER
Minneapolis

MONTANA WHEAT IN SEATTLE MARKET

Montana wheat is now deliverable on contract on the Seattle Grain Exchange, beginning with the July delivery. Merchants operating on the Seattle exchange look upon this as a step forward for their exchange and expect it to increase shipments of wheat from Montana to the Puget Sound district.

The next thing, dealers in that market believe, is to make arrangements for additional storage spaces to be ready by the new crop season.

NEW KANSAS CITY COMMITTEES

The following committees have been appointed to serve the Kansas City Board of Trade during the coming year:

Flour Committee: Henry P. Ismert of the Ismert-Hincke Milling Company, chairman; Harry G. Randall and R. W. Amerine.

Appeals, B. L. Hargis, chairman; H. J. Smith, R. J. Thresher, C. M. Hardenbergh and S. H. Miller.

Wheat Adjustment, H. G. Stevenson, chairman; E. F. Emmons, E. C. Meservey, Jr., W. B. Young and C. E. Watkins.

Elevator and Warehouse, F. C. Vincent, chairman; H. C. Gamage and N. F. Noland.

Legislation, C. W. Lonsdale, chairman; H. J. Diffenbaugh, vice-chairman; H. C. Gamage, J. S. Hart and W. C. Goffe.

Protein, W. C. Bagley, chairman; H. E. Merrill and R. E. Swenson.

Transportation, C. W. Lonsdale, chairman; W. B. Lathrop, vice-chairman; O. A. Severance, N. E. Carpenter, H. A. Merrill, R. A. Kelly and J. Juul.

ECHO-PROOF TRADING FLOOR AT CHICAGO

Experiments over several years by Dr. P. E. Sabine, have developed a wall and ceiling cover which is said to be absolutely echo-proof. The new trading floor of the Chicago Stock Exchange is to be equipped with this covering, and the trading floor of the new Board of Trade Building which will be started this year, will also be so equipped, according to H. A. Rumsey, chairman of the Board of Trade Building Committee.

"Contrary to popular opinion," said Mr. Rumsey, "the floor traders do not enjoy the racket. The multitude of shouts drives them to buy and sell by finger signs. They find their nerves worn to a frazzle at the closing hour. The only ones who enjoy the racket are visitors in the gallery who come to watch and listen as they would at a football game.

"About half the wall space around the trading floor in our new building will be of glass. Every inch of the remainder of the walls and of the ceiling will be covered with sound-absorbing material. The comparative silence will be a delight to every one."

NEW CHICAGO COMMITTEES

The new Board of Directors on the Chicago Board of Trade held its first meeting on January 17 and selected the following committees:

Executive: Messrs. Lipsey, Wood, Lobdell; Finance: Messrs. Lobdell, Essroger, Roy; Real Estate: Messrs. Wood, Carey, Jones; Law: Messrs. Perrin, Fox, Wickham; Room: Messrs. Jones, Wing, Koehl; Membership: Messrs. Norton, Fox, Perrin; Warehouse: Messrs. Templeton, Lipsey, Bascom; Grain: Messrs. Bascom, W. J. Farrel, A. B. Lord, Frank A. Miller, Roland McHenry, G. A. Wegener, Alex Moore; Clearing House: Messrs. Begg, Roy, Carey; Market Report: Messrs. Combs, Norton,

Carey; Radio: Messrs. Wing, Begg, Templeton; Rules: Messrs. Fox, Bascom, Wickham.

Transportation: Messrs. Combs, E. S. Westbrook, E. M. Gallup, J. E. Brennan, E. S. Rosenbaum, F. G. Cox, M. L. Vehon; Weighing and Custodian: Messrs. Lipsey, Begg, Koehl; Claims and Insolvencies: Messrs. Wickham, Templeton, Wing; Provisions: Messrs. Wood, Roy, F. R. Burrows, W. B. Lane, G. C. Shepard, C. E. Herrick, C. J. Roberts; Public Relations: Messrs. Perrin, E. P. McKenna, Parker M. Paine, R. W. Bell, J. F. Lamy; To Arrive Grain: Messrs. J. E. Brennan, F. G. Miley, G. E. Booth, C. E. Scarritt; J. A. Low; Cotton: Messrs. L. S. Dickey, Lobdell, Norton, S. C. Harris, J. W. Evans, J. R. Leavell; New Building Fund: Messrs. Essroger, A. M. Clement, George H. Tanner, R. W. Bell, R. W. McKinnon.

PEORIA'S NEW PRESIDENT

When the Peoria Board of Trade elected Louis L. Gruss to the presidency of that institution at its annual meeting last month, it knew what it was about. Mr. Gruss of the Mueller Grain Company has been in the grain business since 1891 and has



LOUIS L. GRUSS

been trading on the exchange floor of the Board since 1893. With this experience and his knowledge of the problems of the Exchange he is well equipped to lead it through another successful year.

Mr. Gruss is a home product of Peoria. He was born there on October 11, 1877. In 1891 he entered the employ of T. A. Grier & Co., and was associated with that firm in various capacities for 10 years. In 1911 the Mueller Grain Company was organized and Mr. Gruss became a member of the firm and since 1925 has been manager of the company. No wonder the Peoria Board has declared its confidence in his ability by bestowing its highest honor. We congratulate both Mr. Gruss and the Peoria Board.

THAT SOUTHWORTH MAP

Shortly after our last issue was out, containing some comment on a map, purporting to be of South America, which appears in *Southworth's Weekly Market Review*, we received the following letter from Kent Keilholtz:

Our attention was called to your article with reference to our map of Argentine, and we must say right here that it at least made conversation, which a

perfect map would not have done. People now-a-days seem to accept the perfect things without comment. The minute we make an error of any kind in our *Weekly Review* we usually hear from various sources.

You may get some kick out of one letter we received, and are enclosing it for your pleasure. We also had further comment on it, which shows they are reading your paper.

And here is the letter referred to, addressed to Southworth & Co., Toledo:

In the January 15 issue of *THE AMERICAN ELEVATOR AND GRAIN TRADE*, we noticed a criticism on Page 436, regarding the artist who drew the map of South America in your weekly bulletin of December 17. The truth of the matter was that at the time this bulletin came out, we commented upon how your map of South America had changed since we went to school, but passed it by. However, since reading this article, we have come to the conclusion that Kent must have drawn it shortly after he attended a Grain Dealers' convention, and had not entirely recovered from the effects of it.

Thinking that possibly you did not read the criticism in this journal, we are in this manner calling it to your attention.

Respectfully yours,

The McManness Milling & Grain Company.

The subject was closed in the following, which appeared in the February 4 issue of the *Market Review*:

Now about that map of South America recently published on the last page of our *Weekly*. We didn't draw it, censor it, proof-read it or any other ifs, ands, or buts. Guess it was all wrong from the comments received. Who cares! It must have looked something like South America else how did those who wrote mention it as "that map of South America." Ho Hum! Well we welcome a little fun now and then. We never would try to find every country down there anyway. Lindbergh had a hard enough time locating them from the air. P. S.—(We hope Frank McManness of Findlay reads this.)

LOUISVILLE FIRMS LOSE RATE SUIT

During 1923 and 1924 four Louisville grain firms bought grain to the north and west, cleaned it in Louisville and shipped it east and south on through rates. The C. & O. Railway Company brought suit to recover the difference between the through rates and the straight rates and won judgment.

As a result S. Zorn & Co. is out about \$15,000; Callahan & Sons, \$6,000; the Bingham-Hewett Grain Company, \$4,000; and H. Verhoeff & Co., \$2,500. Federal Judge Charles I. Dawson heard the case.

N. Y. PRODUCE EXCHANGE TO DEAL IN SECURITIES

Unlisted securities will soon be traded in on the New York Produce Exchange, according to an announcement of February 6. The committee which has been working on the project has found the plan feasible and has only to perfect arrangements to open the market, probably in the fall.

While none of the details of the plan were disclosed it is understood that about 50 securities are being investigated with a view to listing and providing market machinery along the lines in operation on the New York Curb and Stock Exchanges.

Associate memberships will probably be abolished and the issuance of \$10,000 in stock of the stock to each member, putting all members on an equal basis, is expected to be authorized and indorsed by a majority of the membership. This will provide funds, in part, for the installation of ticker services, an investigation bureau and a statistical department in which specialists in securities will be employed.

Another project of the Exchange provides for a new building on the present site at Hanover Square

February 15, 1928

and was reported today to be rapidly nearing completion by the Real Estate Committee of the Exchange.

BAD ROADS STOP CORN SHIPMENTS

The cash grain situation in Peoria is moving along in a rather quiet way right now on account of the very light receipts of corn and oats. Up to a few days since we were getting a very heavy movement of corn this way. The Illinois shipper was busy and we all had plenty to do handling the average of 125 to 150 cars daily but since the warm weather struck the country and the frost is gone out of the ground and some rain has come—the result is that the country roads are just about as bad as they can be and it seems to have put a stop to the movement of corn in Illinois. This is ready to begin again just as soon as the country roads are suitable.

Prices here have been just about in line with other markets and we have had a sufficient demand to clear up the large arrivals. Right now our demand is good with daily local industrial requirements for about 75,000 bushels. Besides we have a good shipping demand for the selected Yellow grades.

The oats arrivals have been a few cars daily and they have been bringing fully up to other markets and a good many more of them could be handled here, though the general trade in oats seems to be dull.

There is no wheat of consequence coming this way now.—P. B. & C. C. Miles, Peoria, Ill., letter of February 11.

MILLING WHEAT IN DEMAND

The situation in this market is very firm for all kinds of spot grain. Milling wheat has been in excellent demand, with some grades getting quite scarce. Durum wheats have also been selling well and local supplies in store are almost exhausted and some is being brought in all rail.

Corn prices are the highest since the new crop commenced to move with limits for the better grades holding well and following the full advance in Chicago futures. The advance of the past few days has caused a temporary cessation of buying on the part of Eastern consumers, but they will soon need more supplies and we anticipate a very active trade in corn during the balance of the winter. Local elevator stocks are the smallest in years and are not accumulating as they should be at this season. There is no chance of their attaining anything like the volume of former years.

Oats are the dullest of all the cereals, but any kind of fair test weight oats are in good demand and promise to continue so as spring approaches.—J. G. McKillen, Buffalo, N. Y., letter of February 11.

COLD WEATHER NEEDED

Long distance weather forecasters also the Government official forecaster who predicted much colder for the last of this week, seem to be all badly mixed as we have typical spring both in temperature and sunshine. Many and varied are the opinions expressed on winter wheat, but the nearest we can estimate is a good amount of late wheat pretty badly damaged while some still has a chance—earlier sown in better shape. Quite a lot of low spots where water covered the wheat will be barren.

Wagon roads are the worst they have been in years here and it will take sunshine to dry them or a freeze to permit the delivery of much corn. The road condition can best be judged by a report from a public sale held this week, where the attendance was 500 people and not an automobile on the ground. Not being able to deliver the corn farmers are very slow sellers and a waiting attitude is encouraged by the advance of the past few days. Cold weather will probably bring out more corn, but we would look for the marketing to be very orderly from this time forward.

Some improvement in the quality of recent deliveries indicating the grower probably marketed his worst corn first and the end of deliveries direct from the field. There is still quite a little concern

as to the keeping qualities of a portion of the corn cribbed damp and some of it will undoubtedly deteriorate. Demand for corn both domestic and export slowing some on the advance and this period of lighter receipts is probably beneficial.

The movement of oats has been very gradual and about equal to the demand; with the arrival of spring it will probably be found most of the local elevator stocks have gone into consumption.

Values here: No. 4 Yellow corn 84 to 86; No. 4 White corn 83 to 85; No. 2 White oats 54½ to 55½; No. 3 White oats 53½ to 54.—Letter of February 11 from H. I. Baldwin & Co., Decatur, Ill.

BOSTON'S PRESIDENT SATISFIES

For the third consecutive year the Boston Grain & Flour Exchange elected Albert K. Tapper as president on February 6. He has served the Exchange well during a period when constructive thinking and hard work was demanded, for the Exchange has just purchased a new building at 177 Milk Street, and the purchase followed a long and troubled preliminary.

Working with Mr. Tapper will be Frank A. Noyes, first vice-president; Edward H. Day, second vice-president; and the Directors to serve four years: Clarence G. Newton, John A. Schroeder, Henry E. Taylor and Warren G. Torrey.

On the evening of the day following the elec-



ALBERT K. TAPPER

tion, the annual banquet of the Exchange was held, the principal speaker being Julius H. Barnes, Paul T. Rothwell acted as toastmaster and short addresses were made by President Tapper, Cyrus C. Lewis, Melville D. Liming, Elliot H. Goodwin and H. J. Horan of Philadelphia.

VOLUME OF GRAIN FUTURE TRADING IN JANUARY

The sharp falling off in future trading on the Chicago Board of Trade in January is a matter for serious consideration. This decrease is comparable, not only to the December figures, but also for January of last year. The January totals this year were 841,732,000 bushels, as against 1,224,282,000 in December and 930,949,000 in January last year. The total of last month was divided among the various grains as follows, for the purpose of comparison the December figures for each grain being given in parentheses: Wheat, 298,582,000 bushels (436,484,000); corn, 470,789,000 bushels (630,561,000); oats, 56,841,000 bushels (135,346,000); rye, 15,520,000 bushels (21,891,000).

The average open contracts in futures at Chicago in January, "short" side of contract only, there being an equal volume on the "long" side, were: wheat, 81,733,000 bushels, compared with 75,934,000 in December and 90,024,000 in January 1927; corn, 83,525,000 bushels, as against 75,150,000 in December and 68,526,000 a year ago; oats, 36,132,000

bushels compared with 34,430,000 in December and 48,960,000 in January of last year; rye, 9,882,000 bushels, as against 9,746,000 in December and 13,468,000 in January of last year.

HIGH PREMIUMS FOR RED WINTER

We are glad to report that business is fairly active in our section. The past 15 days we have bought considerable corn and from now on would not be surprised to see the cash corn get on a little better buying basis with the option than it has been owing to the fact that most of the people who put corn away are getting fairly well filled up and are going to be a little more independent from now on.

Red Winter wheat is getting to be very hard to buy, there is a fairly good demand for it and it looks like premiums will go considerably higher. At the present time we are selling No. 2 Red Winter wheat at 25 over the May f. o. b. Cincinnati.—Letter from The Early & Daniel Company, under date of February 11.

HIGH PREMIUM FOR RED WINTER WHEAT AND SEED OATS

We are experiencing an unusual demand for good Soft Red Winter wheat with premium obtainable at practically the top that we have experienced at any time on this year's crop of wheat. Receipts are light and millers are beginning to get a bit concerned as to whether they can secure Soft Red Winter wheat suitable to their use.

Corn receipts considerably lighter. In fact, a large per cent of what little corn we are getting in here now is corn on contract or out of other terminal markets, with a rather indifferent demand for corn of high moisture as buyers with driers are loaded up and are inclined to sit back and wait for the next movement of corn which we figure is a certainty provided we get two or three weeks of suitable weather in which to move it.

Oats receipts are not burdensome with a good demand and good prices. No. 2 White oats, heavy weight and good color, are bringing nice premiums, particularly if they are oats which are of a character which will answer seed oats requirements.—Cleveland Grain & Milling Company, Indianapolis, Ind., February 11 letter.

INDUSTRIAL CORN IN DEMAND AT PEORIA

Wheat: Receipts of old wheat in this territory have been practically nothing. Good Soft Winter wheat is in fair request at reasonably high prices. While the good grades of Hard wheat are bringing a fair price, the lower grades are rather dull. While it is early to tell much about the growing crop of wheat, there is a fairly large acreage planted and within the next month when the wheat starts growing, we will be able to determine to a certain extent whether the very limited snow covering which it has had during the fall and winter has done it any harm. There seems to be quite a little bearish feeling on the old stocks of wheat on hand, but we do not feel that way. We believe that all the wheat that is in the visible and in the invisible will be used up before the new crop comes on and at higher prices than it is selling at the present time, and with any damage showing in the growing crop. July wheat might easily advance considerable from the present price.

Corn: Receipts of corn the past month have been running from light to very heavy. Around the first of the month they were fairly heavy, but at the present time they are getting lighter again. Our prices have held up well with all other markets on good corn, and on the poorer grades, most all the time this has been the best market. There is a good industrial demand here and shippers are in the market occasionally for heavy weight corn. We believe that this will continue to be the best market for all grades of industrial corn, and the good corn will sell at equal prices with other markets. Future markets in the past week have taken quite a bullish trend. There are quite a number of people in the trade who do not believe that the Government report is correct, or that we have raised consider-

ably less corn than the 2,750,000,000, and as future trading is very light, it does not take much effort for those who are bullish to dominate the market. Industrial demand has been good everywhere since the crop began to move. Shipping demand has come in at intervals. At the present time on this last advance, both shipping demand and export demand is absolutely nil.

With hogs selling at the present low price, and all kinds of cheap substitutes being used for corn, and bad roads off and on for the past two months, delaying the movement east of the Mississippi River, no doubt considerable less corn is being used than would be used under ordinary circumstances for feeding. Western receipts have been quite heavy right along and still continue of a fair volume, and if the export demand does not follow the advance in prices, its effect will be felt in the futures.

Oats: Receipts of oats in this market and all markets have not at all been burdensome and have been taken care of, and the visible showing a decrease right along. We look for oats prices to do better. All grades of oats have been selling well in this market and most of the time have brought better prices than other competing markets.—*Mueller Grain Company, Peoria, Ill., letter of February 11.*

CHANGES IN MEMBERSHIP

Chicago.—The following have recently been elected to membership on the Board of Trade: Allan S. Noyes, John E. Curtis, Frank E. McDonald, John J. Schaack, Benedict K. Goodman, Lewis E. Simons, Charles W. Allen, Walter F. Schultze, Hugo J. Lion, Richard B. Hilliard, James C. Crouch, Charles J. Baker, Jerome B. Rockhill, James S. Hart and William E. Allison. The following transfers were made: Newton S. Shannon, Newton Shultis, Jesse L. Smith, Bruno Reinicke, Edw. B. Carson, Albert R. Taylor, W. J. Klosterman, Harry B. Heywood, Est. B. S. Bache, Charles Varga, Charles A. Pride, Edw. T. Cushing, Est. Fred C. Orthwein, Wm. J. Mueller and Estate John J. Mitchell. Reported by Secretary James J. Fones.

Duluth.—Helmer Grenner is a new member of Board of Trade and Frank L. Carey is no longer associated with the exchange. Reported by Secretary Charles F. McDonald.

Indianapolis.—New members on the Board of Trade are: Byron K. Elliott, Roy N. Downs, Howard A. Koch, O. C. Shirley, and Peter P. Triller.

Memphis.—Memberships have been granted the following on the Merchants Exchange: Union & Planters Bank & Trust Company, F. C. Weathersby, J. P. Sledge, Central Feed Mills, Central Mills Corporation. The following have withdrawn their memberships: C. H. Mette, and Falls Austin. Reported by Secretary J. B. McGinnis.

Richmond.—H. A. Walker has been admitted to membership in the Grain Exchange. Reported by Secretary W. F. Green.

TERMINAL NOTES

Dan Southwell will represent the Eastern Grain, Mill & Elevator Corporation of Buffalo in Ohio.

Emanuel Gonzales has joined the export department of J. S. Waterman & Co., of New Orleans, La.

Articles of Incorporation have been filed by the Searles Terminal, Ltd., Winnipeg, Man., capitalized at \$1,500,000.

The Continental Grain Company of Canada, Ltd., has been incorporated at Winnipeg, Man., capitalized at \$100,000.

O. Hollander is now associated with D. Rothschild & Co., Chicago, Ill. He was formerly with McKenna & Strasser.

W. J. McNeill is now associated with the Russell Grain Company at Kansas City, Mo. He was formerly with the Nye & Jenks Grain Company.

The headquarters of the Sioux City (Iowa) Grain Exchange are now located in the Warnock building. C. C. Flanley is president of the Exchange.

Charles Sincere & Co., grain brokers of Chicago, Ill., have secured larger quarters in the Palmer House, Chicago, where they have been located for

a time now. Thomas E. Hosty is in charge of the office which is located on the men's floor in the sub-arcade.

A branch office has been established in the Allen Building, Dallas, Texas, by F. E. Thompson of James E. Bennett & Co., grain dealers of Chicago, Ill.

Helmer Grenner will be cash grain buyer for A. D. Thomson & Co., of Duluth, Minn. He was recently elected to membership on the Duluth Board of Trade.

The headquarters of the Vanderslice-Lynds Company of Omaha, Neb., have been moved from 631 Grain Exchange Building to Room 201 in the same building.

Claude Rush has been transferred to the Dallas, Texas, office of James E. Bennett & Co. He formerly was an operator in the Enid, Okla., office of this company.

The daily call board for grain and mill products was resumed by the Merchants Exchange of Memphis, Tenn., on February 1. It had been suspended for a couple of months.

Ray E. Lee is now in charge of the Vancouver Terminal Company, Ltd., office at Calgary. He was manager at Vancouver and will be succeeded by D. McLean of Calgary.

A membership in the New York Produce Exchange has been bought by Logan & Bryan, grain brokers of Chicago, through their representative in that city, W. G. Gallagher.

C. J. Jaquith has been made a director of the Boston Grain & Flour Exchange, succeeding Charles Varga who resigned. Mr. Jaquith is a grain and feed dealer of Boston.

The following will serve on the Committee on Grain of the Grain Trade Association of San Francisco, Calif., for the next year: W. S. Bell, H. H. Cook, A. H. Hankerson, L. B. Hart and W. W. Volmer.

Frank L. Carey, who was registered on the Chicago Board of Trade as president of the Nye & Jenks Grain Company of Chicago, is now registered as vice-president, Hallet, Carey, Swartz Company, Ltd., of Winnipeg.

James A. Richardson has been made a director of the Hudson's Bay Company, Vancouver, B. C. He was also recently elected a director of the Canadian Pacific Railway. Mr. Richardson is a well known Canadian grain man.

The directors of the Chicago Board of Trade made the following appointments recently: Edward J. Dies, assistant to the president; Walter S. Blowney, assistant secretary; W. R. Meadows, cotton registrar. No appointment was made for secretary or attorney.

At a meeting of the Seattle Exchange, Thad R. Perry was elected president. George R. Cary is vice-president and Phil Benedict, secretary-treasurer. Roger D. Pinneo, who was elected manager of the exchange last spring, was continued in office by the trustees.

The Frank H. Higgins Company has been incorporated at Minneapolis, Minn., to engage in a general grain business. The company has been elected to corporate membership in the Minneapolis Chamber of Commerce. Mr. Higgins is president of the Minneapolis Grain Commission Merchants Association.

T. F. McCarthy was re-elected president and Carlisle Hastings, vice-president, of the Duluth Grain Commission Merchants Association. At the annual meeting of the organization on January 24, the following were elected directors: T. F. McCarthy, Carlisle Hastings, B. C. McCabe, G. E. Peterson and F. W. Falk.

George G. Raymond is now a member of the Ryer Grain Company of Spokane, Portland, and Seattle, Wash. He is assistant secretary of the firm and will make his headquarters at Spokane, covering the territory served by the company in Washington, Oregon, Idaho and Montana. Mr. Raymond was with the Sperry Flour Company for 10 years and was grain buyer for the Spokane

district when he made the change. F. E. Ryer is president of the Ryer Grain Company, which was organized in 1914; W. A. Ryer, vice-president; A. A. Ryer, secretary; D. P. King, treasurer.

A radio broadcasting station is to be built, it is reported, by James Richardson & Sons, Ltd., of Winnipeg, Man., near the eastern border of Saskatchewan. It will be in charge of D. P. R. Coats, former announcer for Station CKY, Winnipeg, who is now operating the James Richardson station CJRM at Moose Jaw, Sask.

At the annual meeting of the Philadelphia Commercial Exchange, Hubert J. Horan was re-elected president. The other officers are: George M. Richardson, vice-president; Samuel L. McKnight, treasurer. The directors include, Albert L. Hood, Stewart Unkles, Filson Graff, C. Herbert Bell, Philip R. Markley and Roy L. Miller.

The Topeka Board of Trade recently held its election of officers with the following results: President, David Page; vice-president, V. P. Campbell; directors, L. C. Grubb, F. W. Davidson, C. L. Parker and F. A. Derby. T. J. Myers, Art McMahan and S. W. Grubb are the holdover directors. E. J. Smiley is retiring president.

A 10-story addition is to be built to the Winnipeg (Man.) Grain Exchange Building. The estimated cost of the addition will be \$500,000. The contract has been let to the Carter-Halls-Adlinger Company, Ltd. The decision is the outcome of pressing applications from present tenants and other grain interests for additional space.

James J. Fones who has been secretary for the Chicago Board of Trade for a number of years did not seek re-election this year. Mr. Fones will go this spring to California and will represent E. A. Pierce & Co., stock and grain brokers, of Chicago. He has been a member of the Board for 38 years and has served as a director and vice-president.

At the recent meeting of the Kansas City (Mo.) Grain Clearing Company, C. W. Lonsdale, head of the Simonds-Shields-Lonsdale Grain Company, was re-elected president. The other officers of the company are: J. J. Wolcott, first vice-president; W. J. Mensendieck, second vice-president; H. F. Spencer, secretary and treasurer; G. G. Lee, manager.

Louis N. Ritten & Co., organized last month, have taken over the Louis N. Ritten Grain Commission Company of Minneapolis, Minn. This business formerly was conducted by Mr. Ritten as an individual and will now be conducted as a corporation. Louis N. Ritten is president and treasurer. A. B. Hessburg is vice-president and Charles E. Ritten, secretary.

Roger MacVeagh is now a member of the Board of Directors of the Portland Merchants Exchange succeeding Frank H. Ransom, who resigned last fall. Mr. MacVeagh assisted in the Merchants Exchange's reorganization plans last summer. The directors at their meeting also decided to extend the service of the exchange to a 24-hour basis, effective January 18.

The Merchants Exchange of Memphis, Tenn., has elected the following officers for the new year: President, Clarke E. Coe; vice-president, Thomas B. Jones; directors, C. C. Taylor, S. F. Clark, L. P. Cook, L. R. Hawley, W. R. Smith-Vaniz, E. E. Anderson, S. Tate Pease and Charles B. Stout. James B. McGinnis has been re-elected secretary and freight traffic commissioner.

Fred H. Foote has retired from the commission firm of F. H. Foote & Co., operating at Baltimore, Md., but the grain and produce business will be continued as F. H. Foote Company, under the direction of George L. Meyers, a half partner in the old concern. Mr. Foote has been a member of the Baltimore Chamber of Commerce for a number of years, and is now retiring from active business altogether.

The New Orleans Board of Trade held its annual election in January choosing the following to serve during the coming year: Fred Kunz, president; W. L. Richeson, vice-president; James Thomas, second vice-president; J. S. Cave, third

vice-president; H. S. Herring, secretary. G. R. Westfeldt, Theodore Brent, W. D. Seymour, G. A. Wiegand, J. M. Gehl, W. E. Winship, J. Mouldaoux, A. W. Berdon, E. E. Lamberton, M. W. Boylan, Jr., Jake Levy, Sam Israel and Fred Brenchley are on the Board of Directors.

At the annual meeting on January 30 of the Baltimore Chamber of Commerce, General Henry M. Warfield was re-elected president and A. W. Mears vice-president. The following comprise the Executive Committee: Chairman, J. Adam Manger; vice-chairman, William Rodgers; Charles E. Scarlett, Blanchard Randall, Jr., and A. Leslie Lewis. James B. Hessong was reappointed secretary-treasurer.

Thomas M. Blake of New York, who was registered on the Chicago Board of Trade, for Blake-Dobbs Company, Inc., is now registered for his personal account. Wm. N. Eckhardt is now registered for his own account instead of as president of Pope & Eckhardt Company. Paul W. Fleischmann is now vice-president of the Fleischmann Malting Company, Chicago. He was formerly listed as vice-president of Henry Rang & Co.

The Grain Receivers Association of Chicago, Ill., on January 19 changed its name to the Cash Grain Association of the City of Chicago. The organization was formed about 20 years ago and its membership was limited to grain receivers exclusively. Recently it opened its membership to cash grain interests also. George E. Booth is president; Edward S. Westbrook, vice-president; Edwin A. Doern, Fred G. Winter, Frank G. Coe, E. R. Bacon and John E. Brennan, directors.

Calendars and cards with greetings as reminders of the New Year reached us this year from coast to coast. Since our last acknowledgments were written we have received a desk calendar from the A. W. Scott Company, successors to Scott, Wagner & Miller of San Francisco, Calif., and a large wall calendar from the A. S. MacDonald Commission Company of Boston, Mass. The large numerals and the previous and succeeding months on each sheet, make this a particularly useful office fixture.

The annual meeting of the Montreal Corn Exchange Association was held at Montreal, Que., on January 25. Officers were elected as follows: President, T. C. Lockwood; treasurer, Alfred Chaplin. The Committee of Management will be: J. M. Vittle, Merton L. White, A. W. Brown, E. Turgeon, Harold W. Corrigan, Guy D. Robinson, C. H. G. Short. H. W. Raphael is chairman of the Board of Review; other members of the Board are W. W. Hutchinson, H. D. Dwyer, Joseph Quintal and William McDonald.

WHEN THE AGENT LEASES

By M. L. HAYWARD

"I understand that you are the agent for the owner of the warehouse on the corner of First Street and Lawn Avenue," the grain dealer suggested.

"Yes, and I'll rent it to you for a year, \$100 a month rent, and you pay the city taxes," the agent replied.

"Have you proper authority to execute a lease?"

The agent produced a letter from the owner.

"I hereby authorize you to lease my building on corner of First Street and Lawn Avenue for \$100 per month, the tenant to pay the city taxes, and to execute a proper lease under seal," the letter read.

"That's satisfactory," the grain dealer agreed. The lease was duly written and signed and sealed by the grain dealer and the agent, but the grain dealer, in order to be on the safe side, promptly notified the owner of the transaction.

"I've already leased the warehouse for \$150 per month," the other declared.

"I saw a letter from you to the agent authorizing him to lease for \$100 per month, and here's my signed lease," the grain dealer retorted.

The owner looked at the seals and signature.

"Not worth 'blind' typewriter it is written on,"

the owner remarked. "The lease is under seal, and the law is that the authorization of an agent to execute a lease under seal must be given under seal, so my letter is not sufficient authority."

And the owner was right, as the California, Illinois and Indiana courts have ruled in his favor on this point.

BUFFALO MILL TO ERECT LARGE ELEVATOR

The new elevator of the Hecker-Jones-Jewell Milling Company at Buffalo, N. Y., will have a capacity of 3,000,000 bushels of grain. The total investment proposed is over \$5,000,000, and the elevator is being built in such a way that it will operate in conjunction with the projected unit of 2,000,000 bushels which will ultimately bring the storage capacity of the milling company at this point up to 5,000,000 bushels.

The elevator is so arranged in the plans that commercial grain business may be handled through one end—the right of the illustration published herewith; and the work house with cleaning machinery, to serve the mill, is at the opposite end. There will be two marine legs, each with a capacity of 33,000 bushels per hour.

The engineers in charge of the new elevator plans were A. E. Baxter Engineering Company of

was to view it in the light of all the things it covered. In that respect, he considered the grain traffic and rates unique. He presented figures to show that the percentage increase in the tonnage of grain products, which take the grain rates but do not produce as large earnings, had been greater in recent years than on grain.

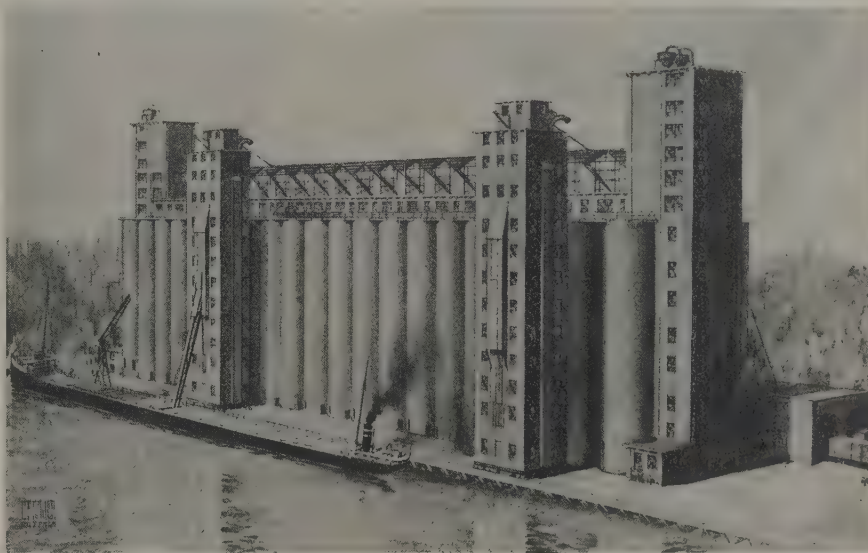
H. A. Feltus, Minneapolis grain man, appeared before the rate Commission, by request, to present the relationship of prices paid for grain at country elevators and prices paid at the terminal markets.

Sixteen Kansas farmers were put on the stand by the railroads to testify that agriculture had improved since 1924.

A NEW HANDBOOK ON MORSE SILENT CHAIN DRIVE

The Morse Chain Company of Ithaca, N. Y., has recently issued a handbook on silent chain drives that treats very thoroughly the subject of silent chain power transmission and greatly facilitates the selection and design of the proper drive for any given requirements. Complete instructions on how to design silent chain drives are given together with a discussion of the various factors that must be considered. This is followed by an example of an actual design.

A comprehensive list of typical drives is given to



PROJECTED ELEVATOR OF THE HECKER-JONES-JEWELL MILLING COMPANY AT BUFFALO, N. Y.

Buffalo, and the contractors are the James Stewart Corporation, Chicago, of which W. R. Sinks is president and T. D. Budd is vice-president and chief engineer. Mr. Budd stated in an interview that this house would probably be one of the most modern ever erected, that caissons are being carried to solid rock for the foundation, and that each caisson has a diameter of 4½ feet. He went on to say that the Budd Sinks Dust Prevention System would be used on all legs, bins and belt leaders; and that the usual steel bin bottoms would be installed.

RAILROADS PRAISE STATUS QUO BEFORE RATE BODY

"Grain and grain products are distinctly favored," declared A. F. Cleveland, railroad traffic chief appearing before the Hoch-Smith grain rate tribunal this month, "as compared to other commodities in terms of the level of rates now as against those in effect prior to the war." In the case of the Northwestern line, he asserted that in the pre-war period from 1911 to 1915, inclusive, the grain traffic produced 16 per cent of the total revenue, as against 12.6 per cent in the period from 1922 to 1926.

Had the rates maintained the relativity of the former period, he said, the traffic would have produced \$15,491,119 more revenue in the latter period than it did. A further point stressed by him was that the only fair way to judge a rate on grain

assist engineers in estimating cost of drives similar to these shown. It is also helpful in that it gives pitch, width and number of teeth which may well be used on similar drives. Also, there are tables giving sprocket diameters, sprocket list prices, chain list prices, standard hub lengths, bores and other data that is useful in the successful design of chain drives. Complete instructions are given as to the installation, care and operation of Morse Drives. Another section of the book is devoted entirely to the illustration and description of Morse Drives on various types of machinery and in almost every industry.

The new Morse Speed Reducer with Morse Flexible Coupling, enclosed in cast iron housing, is also completely illustrated and described. In fact, this book is a complete and ready reference for solving most any power transmission problem.

ZINC IN WHEAT

Under the class of useless yet interesting information, is the discovery by French scientists that both zinc and manganese are present in wheat in measurable quantities. The embryo of the wheat berry, representing 1.43 per cent of the grain, contains 15 per cent of the total zinc in the seed. Several varieties of wheat were tested and the average results showed that "in 100 grammes of wheat, 3.9 milligrammes of manganese were present in the dry grains." The average figure for zinc was 2.2 milligrammes.

TRADE NOTES

The Huntley Manufacturing Company of Brocton, N. Y., reports that its steel frame Monitor Cleaners are meeting with marked favor and that many new orders for these safe and efficient machines are being received.

T. M. Manley, who has served in various capacities for the Morse Chain Company for about 20 years, has recently been appointed manager of the district including the Mohawk Valley, northern New York, Vermont, western Massachusetts and northeastern Pennsylvania. Mr. Manley's headquarters are at Ithaca, New York, the main office and works of the Morse Chain Company.

The American Dry Milk Institute of 160 N. La-Salle street, Chicago, has recently had an appeal from a Kentucky race colt farm for dry skim milk to supplement the meagre supply of fresh skim milk, "for some race colts that are not doing so well." Live stock feeders of every kind are finding out what great bone-building virtue there is in dry skim milk and its use in spreading with great rapidity.

Elevators handling cattle, hog and poultry feeds are finding that there is considerable profit in another line of similar kind, that is the dog feed and dog remedies made by G. P. Rose & Co. of Nashville, Tenn. Every town has a lot of highly bred and valuable dogs which should be fed as carefully and scientifically as show livestock, but too frequently are overfed from table scraps. This is a line that is worth investigating.

The labor and bad language attendant on opening grain car doors by the old hand methods are rapidly being done away with. The Strong-Scott Manufacturing Company of Minneapolis, Minn., have had a gratifying volume of orders for both the Peterson Pneumatic Grain Door Remover and the Pank Grain Door Remover. Both the air pressure and the hand power tools are easily installed and quick and efficient in their action. Grain door labor is a thing of the past for all who have installed these openers.

No commodity carried by elevators moves more quickly and more surely during the season than binder twine. To be sure the season is short, but stocks do not have to be carried over to any extent. A twine with a name behind it as well known as the International Harvester Company of Chicago, needs no salesmanship. Every farmer knows that for the efficient operation of its own machines, International Big-Ball Twine must be good, the company could not afford to have it otherwise.

For the average elevator operator who desires to meet the demand for ground feed in his neighborhood, the matter of economy of space in his elevator is of importance. In satisfying this consideration the combined corn cracking and grading outfit made by Sprout, Waldron & Co., of Muncy, Pa., has had a popular response of large proportions. Three grades of clean cut corn, all of them aspirated, will satisfy almost any neighborhood demand, and complete units of this Monarch machine can be obtained with a capacity up to 2,500 pounds per hour.

As the aggregate of more than 50 years experience in the manufacture of screw conveyors, H. W. Caldwell & Son Company of Chicago, has just issued an 85-page book devoted entirely to screw conveyor, fittings and accessories. A glimpse into the history of screw conveying shows that at the time the Caldwell company was founded—in 1874—screw conveyors were largely built on the job with wooden shafts and various forms of flights. Mr. Caldwell invented the flight made from a circular disc so that a complete turn around the shaft was made with one flight, which was quite an improvement over the best to be had at that time. He also standardized conveyors on pipe shafts with removable couplings, which standards have been continued to the present time with slight changes. These original improvements and inventions were followed later by the invention of the Caldwell Heli-

coid Conveyor. This new book covers both the Caldwell Helicoid and Sectional Flight types. The data, in addition to being very complete, has been arranged in a manner to offer the utmost convenience to those interested in the subject. A copy may be had by writing to H. W. Caldwell & Son Company, Western Avenue, 17th & 18th Streets, Chicago, and asking for Book No. 989.

NEW OFFICERS FOR LINK-BELT

Link-Belt Company announces the appointment of four vice presidents: George P. Torrence, with headquarters at Indianapolis, in general charge of Indianapolis operations and sales of Indianapolis plant products; George L. Morehead, Philadelphia,



NEW VICE-PRESIDENTS OF THE LINK-BELT COMPANY
From Left to Right: George P. Torrence; George L. Morehead; Frank B. Caldwell; W. C. Carter

in charge of eastern operations and sales; Frank B. Caldwell, in charge of the Chicago plant and sales offices tributary thereto; W. C. Carter, in general charge of production at all plants, with headquarters at the general office of the company, 910 S. Michigan Avenue, Chicago.

In addition to the foregoing the officers of the Link-Belt Company are: Charles Piez, chairman; Alfred Kauffman, president, both located at Chicago. Humphrey J. Kiely, vice-president, New York City. Richard W. Yerkes, secretary and treasurer, Chicago.

The Link-Belt Company has expanded materially in recent years, and these new offices indicate the growth and strengthening of organization.

DR. BAILEY LEAVES

Dr. D. L. Bailey, who has been in charge of the Canadian rust research laboratory at Winnipeg, Man., has resigned and on April 1 will take up a professorship in the Department of Botany at the Toronto University. Dr. Bailey was put in charge of the Dominion laboratory of plant pathology in 1924, which later became the Dominion Rust Research Laboratory. He had contributed much to the information available at the present time concerning the rust damage to growing crops and agricultural leaders are sorry that he has left.

COUNT ENGINE EXPLOSIONS

By W. F. SCHAPHORST, M.E.

By counting the explosions of a gasoline engine and doing a little simple figuring, it is possible to determine the efficiency of any gasoline engine of the hit and miss type of governing, with surprising accuracy. Subtract the number of explosions per minute made by the engine when it is pulling no load at all, from the number of explosions per minute when pulling full load. Then divide the remainder by the number of explosions per minute when pulling full load, and the quotient is the so-called "mechanical efficiency."

For a gasoline engine that explodes 95 times per minute when pulling full load, and 24 times per minute when pulling no load at all, the difference is 71. In other words, 71 of the explosions are utilized when pulling full load, whereas 24 of them are lost in overcoming the internal friction in the engine.

Going back to the rule, divide 71 by 95 and the

quotient tells that the mechanical efficiency of the engine is a bit less than 75 per cent—a rather low efficiency. It should be bettered, and it can be bettered by reducing to the minimum the number of explosions per minute when running unloaded.

It is difficult to attain a mechanical efficiency of 90 per cent in a gasoline engine, which is common in steam engines because steam engines are easier to lubricate and the heat problems encountered are not so complex.

Reduction of explosions at no load simultaneously increases the power of the engine, without consuming an ounce more of gasoline. If the number could be cut down from 24 to 10, we would have 14 "useful" explosions to add to the 71, which gives 85. Or, dividing 14 by 71, we find that the

power of the engine has been increased 19.7 per cent. It is doubtful if such an increase could be added to any engine, unless the engine were in a very poor state before the improvement began.

IN CHARGE OF SALES

In addition to his position as first vice-president of the B. F. Goodrich Rubber Company, James D. Tew has now been placed in entire charge of all sales divisions of the company, according to an



JAMES D. TEW

announcement at Akron, Ohio. Mr. Tew's title will be first vice-president and general sales manager.

Although Mr. Tew has long been recognized as an expert on rubber manufacturing, he also has taken an interest in all divisions of the organization pertaining to sales, and in recent years he has taken an active part on the selling and merchandising programs of the company.

There are few men in the rubber industry who have made a more comprehensive research into its problems than James D. Tew. He is admitted to be a leading authority on every phase of the business—from the production of tires and the thousands of other rubber products which Goodrich

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manufactures, to their distribution and retail sales outlets.

Mr. Tew began in the Goodrich factory at Akron in 1906. Twelve years later he was superintendent of the Tire Division of the entire plant; 1925 found him assistant works manager and a year later he was advanced to the position of works manager. Soon after attaining this position he was elected to the Board of Directors of the company and in October, 1927, he was elected to the office of first vice-president.

James D. Tew was born in Jamestown, N. Y., May 2, 1882. He prepared for college in the Jamestown schools and later at St. Paul's, Concord, N. H. In the fall of 1901 he entered Harvard University and was graduated from there with the degree of Bachelor of Science in Mining.

The following other promotions were made in the Goodrich company: C. E. Cook to general manager of sales, Mechanical, Footwear and Druggists' Sundries Division; H. C. Miller to general manager of tire sales, Automotive Division; L. A. McQueen to general manager of tire sales, Dealers' and Distributors' Division.

MOTOR TRUCK TIME SAVER TO GRAIN GROWERS

When a man owns a motor truck he saves time, and to the busy man these days time means money. In the grain growing areas of western Kansas and Nebraska, particularly where the railroads are some distance apart, the motor truck is fulfilling a real need in marketing farm crops. Usually prices are better early in the season and naturally therefore those farmers who market their crops first profit by such early delivery. Above is shown an



UNLOADING GRAIN TRUCK IN KANSAS

International one-ton speed truck equipped with grain-carrying body and owned by Elmer Jackson, Beaver City, Neb., at the elevator of the Urbom Grain Company, McDonald, Kan. The front part of the truck is raised by an elevating mechanism as shown to facilitate the unloading of the grain into a hopper beneath the floor.

TO PREVENT DUST EXPLOSIONS

Codes for the prevention of dust explosions in terminal grain elevators and flour and feed mills have now been adopted as American Standards by the American Engineering Standards Committee. The preparation of the codes was sponsored by the United States Department of Agriculture and the National Fire Protection Association which worked with a sectional committee of the American Engineering Standards Committee.

Standards were recently adopted also for pulverized fuel systems, starch factories, and pulverizing systems for sugar and cocoa; others are being studied at the present time for sulphur crushing and pulverizing, spice grinding and pulverizing, hard rubber grinding, wood working, and the pulverization and atomization of metals.

A recent census of manufacturers showed that 28,000 plants in the United States, employing over 1,300,000 persons, and with an annual production of \$10,000,000,000, are subject to the hazard of dust ex-

plosions. Extensive research into the causes of dust explosions by the Bureau of Chemistry of the Department of Agriculture led to a study of the problem by the National Fire Protection Association, and later to the preparation of safety codes by the American Engineering Standards Committee.

The code for terminal grain elevators provides, in part, for buildings constructed of fire resistive materials with a large percentage of window space, and with smooth interior walls free, as far as possible, from pockets or ledges which can accumulate dust; roofs and side walls of belt conveyor galleries and side walls of cupolas above bins of light construction offering minimum resistance to explosive energy; separation of buildings by as great a distance as is practicable; dust-proof equipment; automatic controls for motors; isolation of drier units; complete system of cyclone dust collectors; and equipment for removal of static dust.

The code for flour and feed mills provides in part, for construction of fire resistive material with large window area and smooth interior walls; separation of cleaning department from other departments by firewalls; roofs and side walls of belt-conveyor galleries and side walls of cupolas above bins constructed to offer minimum resistance to explosive energy; dust-proof equipment; cyclone dust collectors; and permanent ground wires to remove static electricity.

The Sectional Committee which prepared the codes under the chairmanship of D. J. Price of the U. S. Bureau of Chemistry is made up of representatives of the following groups: Association of Government Labor Officials of the United States and Canada, International Association of Industrial Accident Boards and Commissions, Dust Collection Equipment Manufacturing Groups, Grain Elevator Construction, American Spice Trade Association, Associated Corn Products Manufacturers, National Electric Light Association, Railway Fire Protection Association, Terminal Grain Elevator Merchants' Association, U. S. Department of Labor, Sugar Industry, Underwriters' Laboratories, U. S. Department of Agriculture, Associated Factory Mutual Fire Insurance Companies, Mutual Fire Prevention Bureau, National Board of Fire Underwriters, National Bureau of Casualty and Surety Underwriters, and Underwriters' Grain Association.

100,000 TON ELEVATOR FOR LENINGRAD

According to the *VDI-Nachrichten*, the port of Leningrad is to be considerably enlarged at a cost of 24 million rubles during the next four years. The harbor will be deepened to 30 to 33 feet. A 2,789 foot long anchorage will be provided for ocean steamships. There will also be an 8,000-ton floating dock. The railway trackage will be extended to take care of 1,500 railway cars daily instead of the present 740. A 100,000-ton grain elevator will also be erected during the current year.

NEW TERMINAL ELEVATOR AT PACIFIC COAST

By C. M. LITTELJOHN

Designed to allow for an ultimate capacity of 1,500,000 bushels of grain, a new terminal grain elevator is being constructed at Longview, Wash., the three-year-old "Wonder City of the World," as this progressive Northwest city has been termed on account of the amazing progress it has made since its recent founding. A crew of 40 men has been employed since the first of the year on the structure, as the grain elevator which is to be the nucleus of the larger facilities, costing more than \$370,000, is being rushed to completion for June 1, 1928. A large part of the shipping galleries which will convey the grain from the elevators to the ships has already been completed, as concrete for the 10 outer and five inner storage bins is being poured.

Capacity of the elevator is to be about 375,000 bushels. It is being erected by the Public Port District of the city on its property on the Columbia

River waterfront. The Port District expects to receive a substantial return on the elevator investment, inasmuch as it has already entered into a 10-year contract with an operating company which has leased the elevator on a profitable basis.

Business of the port terminals of Longview has been steadily growing, along with the rapid progress of the city, and this has necessitated the building of a new warehouse on the dock, adjacent to the original warehouse. The new grain elevator has been designed by the John S. Metcalf Company.

AN ENGINEER'S VACATION

Here is a picture of George T. Burrell, president of the Burrell Engineering & Construction Company, Chicago, Ill., who has been building grain elevators, flour mills and warehouses for over a quarter of a century. This picture of Mr. Burrell was taken in the northern wilds of Minnesota, where he was taking a little fishing vacation of six



G. T. BURRELL (LEFT) IN THE NORTH WOODS

weeks, during which time his familiar corn-cob pipe served him steadily, while the brush on his face was growing as wild as the shrubbery shown in the picture.

George, as he is known in the trade, is a good sportsman, and when not playing golf, of which he is very fond, often packs off for a little fishing or hunting trip, whichever happens to be in season.

Mr. Burrell is 54 years old; was born in La Salle, Ill., on November 9, 1873, and started his career in the grain trade as a sheet metal worker, then the installation of grain handling and transmission machinery, and in 1898 commenced the building of grain elevators under the firm name of George T. Burrell & Co. Later, in 1902, he organized the Burrell Engineering & Construction Company, which company has shown a steady growth until today, it is considered among the leading engineers and builders of this class of work. Of course Mr. Burrell has been its president since its inception twenty-six years ago.

NO TRUCE IN SMUT WAR

In spite of the fact that only one car of wheat in 12 received at Minneapolis in 1927, graded as smutty, compared to one car in six during 1926, grain dealers and others interested in clean wheat for the Northwest, plan to follow up their anti-smut activities in 1928 with as much vigor as ever.

Detailed plans for the 1928 campaign to reduce the ravages of grain smut in the Northwest have been entered into on a wider and more intensive scale than ever before, as the result of the latest meeting of the Northwest Grain Smut Prevention Committee in Minneapolis.

The drive, continuing along the lines that proved successful in 1927, will center on "selling" northwest farmers on the advantages and the need of combating smut in wheat, oats and barley by planting only clean seed, free from disease germs.

The Northwest Grain Smut Prevention Committee includes grain merchants, elevator managers, millers, representatives of civic and business organizations and grain experts of the agricultural colleges of the four northwestern states.

LARGE HAMMER FEED MILL BUSINESS RUN BY A WOMAN

By S. E. PETERSON

When I was in the East last December I was invited to visit and inspect one of the world's largest hammer feed mill manufacturing plants. I was thankful for this opportunity to get first hand information on the details of manufacture and business management of the "Jay Bee" Hammer Mill.

One of the outstanding achievements in the manufacturing world is the extraordinary growth of J. B. Sedberry, Inc., Utica, N. Y., and the production and distribution of the "Jay Bee" Mill. And the most remarkable thing about this great record of production and of the performance of the



MRS. M. B. SEDBERRY, PRESIDENT OF J. B. SEDBERRY, INC., UTICA, N. Y.

"Jay Bee" mill is the fact that the brains of one woman, Mrs. M. B. Sedberry, is responsible for its management.

The idea of the "Jay Bee" Hammer mill originated back in 1916 down in Texarkana, Ark.-Tex. From selling a stone burr mill, the idea was conceived that some method or system of grinding could be developed that would eliminate friction and heat, increase capacity and lower the grinding cost. The first "Jay Bee" hammer mills were made by hand in Texarkana. Of course they were crude mills, but it was the beginning of the development of the "Jay Bee" idea.

The idea was proved successful.

The next step in the development of the "Jay

Bee" mill was to find suitable manufacturing connections; for the inventor of the mill was convinced that he really had something better than had ever been made in feed grinders. Through good fortune a manufacturing connection was established with the Bossert Corporation, Utica, N. Y., one of the oldest, largest and best manufacturers of heavy steel stamping material in the world.

In 1920 The Bossert Corporation began to manufacture "Jay Bee" mills; and J. B. Sedberry, Inc., was incorporated as the sole sales distributors of the "Jay Bee" mills.

The connection with Bossert was indeed fortunate, not only for the Sedberry organization, but for everybody who has become, and will become an owner of a "Jay Bee" mill. It would, perhaps, have been physically impossible for an organization to make so rapid a growth as J. B. Sedberry, Inc., has made, were it not for the engineering experience and skill, ample capital, and great manufacturing facilities of the Bossert Corporation. For nearly 45 years of experience in heavy metal stampings is behind every "Jay Bee" mill. And this is an invaluable asset; for the "Jay Bee" is made of manganese and boiler plate steel.

The first "Jay Bee" mill made in Utica was, of course, a great improvement over the old hand made "Jay Bee" made down in Texarkana. Only a few models were first made on what might be termed a trial and error basis. But after these mills had been out in service, the inventor of the mill as well as the Bossert Corporation, was more convinced than ever that the "Jay Bee", in its infancy, back in 1920, was to become, what has since been proved by 8,500 users, an exceedingly popular feed grinder.

The best available engineer was secured. Hundreds of thousands of dollars were invested in equipment. A sales organization was established. New models were designed. Continued improvements were made.

Since 1920, over 8,500 "Jay Bee" hammer mills have been made, sold, and installed.

Today, the "Jay Bee" line of hammer mills is complete for meeting every feed-grinding need. They are now made in 22 styles or models, as follows: Model T—Standard—belt driven mill, in five sizes—requiring 12 horsepower to 75 horsepower; Model S—Direct Connected mill, in two sizes: No. 2 with 30 or 40 horsepower; No. 3 with 50 horsepower or 60 horsepower—motor attached to shaft of mill; Clement Special Heavy Duty Model W—belt driven, in two sizes: 50 horsepower to 75 horsepower—Direct Connected in two sizes: 60 horsepower to 100 horsepower. Model UX Belt Driven Mill made in two sizes—20 horsepower to 40 horsepower. Model UX Direct Connected Mill made in two sizes—25 horsepower to 40 horsepower. Model U—Humdinger Mill in three sizes: 7 horsepower to 30 horsepower. Model C—Midget-Mill, 2 horsepower to 3 horsepower; Model B—Junior mill, in three sizes, 3

horsepower to 12 horsepower. A size and style for every grinding requirement is offered by this company.

I was amazed to learn that the past two years have shown nearly as great a sales volume of "Jay Bee" mills as from 1920 to 1925 combined. In 1927, 2500 mills were sold. This only goes to show that millers, elevator men, and custom grinders are waking up to the fact that for fine, fast, uniform, cool grinding, at the lowest cost per ton, and the lowest depreciation and upkeep expense the "Jay Bee" cannot be excelled.

These facts pertain not only to this country but to foreign countries as well. The "Jay Bee" Mill is now operating in 32 foreign countries, and the export business of the company is a department of growing importance.

For the past three years the management of J. B. Sedberry, Inc., has been entirely in the hands of Mrs. M. B. Sedberry, a truly remarkable business executive. With 25 offices in the United States and over a dozen in foreign countries one can readily appreciate Mrs. Sedberry's position. For not only does Mrs. Sedberry know every detail of the production of "Jay Bee" mills, but she is thoroughly familiar with the conduct of the business in every



WALTER J. CLEMENT

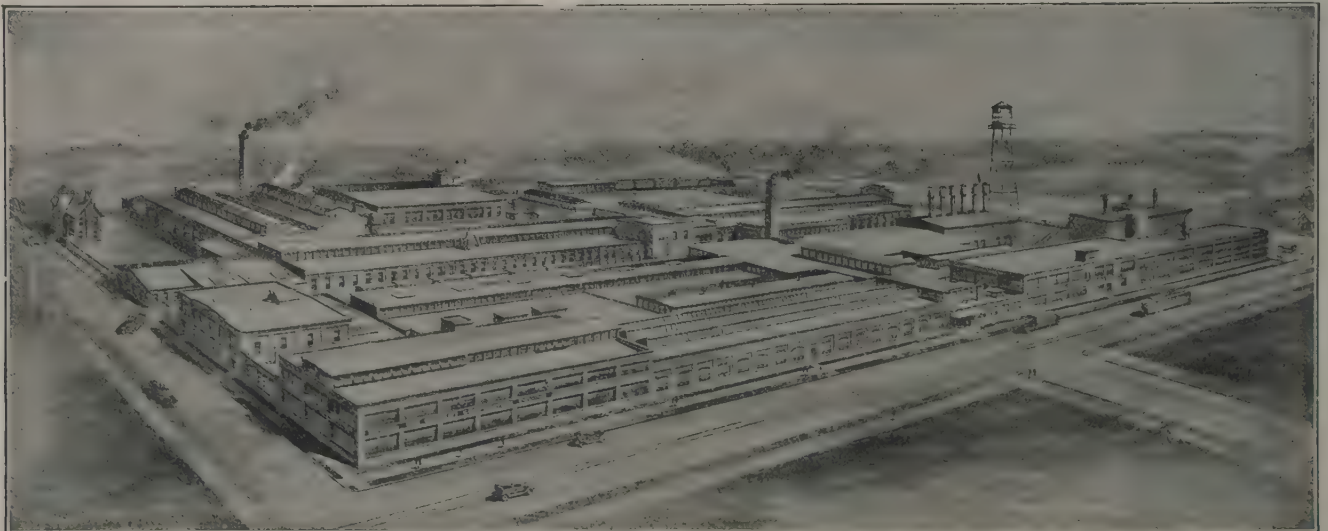
"Jay Bee" engineer in charge of production.

office. She knows each of the 125 or more salesmen personally.

Of course, Mrs. Sedberry has a real loyal corps of associates, every one of whom is always ready to "go to bat" for her.

In a business that has grown so rapidly to its present wide proportions, the largest of its kind in the world, it is all the more unusual that Mrs. Sedberry has the manufacturing and executive ability to conduct this business so successfully. For it must be remembered that only a very few women in this entire country are industrial leaders. And, to my knowledge, Mrs. Sedberry is the only woman executive in the milling machinery field.

One outstanding factor in the manufacture of "Jay Bee" Mills is not to see how cheaply they can be made, but how good. Nothing is spared in skill, equipment or material. And because of the brains, ample capital, and unlimited manufacturing facilities, quality and quantity production is now carried out on a basis which makes it possible to make a good feed grinder to sell at a low price.



MILLION DOLLAR PLANT OF THE BOSSERT CORPORATION, UTICA, N. Y., HOME OF "JAY BEE" MILL

NEWS LETTERS

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

MILWAUKEE is getting an excellent run of grain which is pleasing to the grain dealers of the city. During the first week or two in February many train loads of grain have been rolling in daily. In one day recently, no less than 322 cars of grain were reported. In a single day more than 250 car loads of corn were received. And quite a number of days have shown receipts in excess of 200 cars. This bears out the assertion made recently that Milwaukee is likely to have a record run of corn during this crop season. On the other hand, the record for grain receipts in January, while good, was not good enough to show any material gains in most of the principal lines.

Wisconsin farmers show some tendency toward going into a little more wheat raising, the crop reporting board of the state declaring that the area seeded for the coming season was about 5 per cent above that of the area seeded to this grain a year ago. The rye area of the state is estimated at 230,000 acres by the crop reporting board, or exactly the same as the previous year.

Despite fairly heavy receipts of corn, the supply of grain in storage in Milwaukee has not gone up very much. The supply of corn in stock early in February was placed at 1,858,000 bushels, while the holdings of oats were approximately 1,641,000 bushels, making a supply of these two grains of about 3,500,000 bushels. Other grain holdings in Milwaukee are exceptionally light with only 139,000 bushels of barley, 35,000 bushels of rye and about 33,000 bushels of wheat. The supply of all of these three grains combined was only approximately 200,000 bushels.

Extensions of the Chicago, Milwaukee & St. Paul Railroad yards in North Milwaukee, which will amount to practically a new terminal, are of special interest to the grain trade. These announcements came following the visit and inspection of the situation here by the new president of the company, H. A. Scandrett, also a number of other high officials of the company. As soon as the grade separation project of the company on the Northwest side of the city is completed, it is expected that the railway will build a gigantic classification yard in North Milwaukee to relieve the congestion of freight train movements in the downtown yards. The yards will be for the Superior and Northern division.

E. W. Taylor, president of the Nye & Jenks Grain Company of Omaha, Neb., has been elected a member of the Milwaukee Chamber of Commerce. While the company will not establish offices here, it has formed membership connections so as to facilitate the shipping of grain to the Milwaukee market.

Six members of the Milwaukee Chamber of Commerce have been delegated to attend the meeting of the Iowa Farmer Grain Dealers' convention which will be held in Cedar Rapids, Iowa, from June 24 to 26. This meeting represents grain handlers from which Milwaukee draws quite a large portion of its grain receipts. Those of the local grain board who will attend are J. M. Riebs, Jr., L. J. Keefe, John C. Hensey, Roy I. Campbell, Josef Mueller and A. L. Johnstone.

Barley handlers and growers and maltsters will be very much interested in the statement made at a meeting by speakers at the Master Brewers' Association that there will be some slight modification of the Volstead Act before the close of 1928. No proof was offered as to just how this action for beer will be brought about and no source of information was cited other than the brewers' hopes.

Milwaukee is reported as steadily gaining in future sales of grain. Statistics show that the total here has been going up and that Milwaukee

has displaced St. Louis among the ranking states in the importance and volume of this class of business. Approximately, one seventh of the entire barley of the United States in 1927 was handled at the Milwaukee market, according to figures compiled by Secretary Harry A. Plumb. The period covered was for the crop year from July 1, 1927 to January 31, 1928.

Before the days of prohibition, Milwaukee was the leading barley market of the entire world, receiving approximately 20,000,000 bushels each year, with the peak of 22,000,000 bushels during the year 1916. Of the four chief markets, Duluth is now taking the lead with receipts of more than 15,000,000 bushels. However, Milwaukee is running ahead of Chicago, the comparison showing a lead over that city of more than 1,000,000 bushels.

A correction has been made in the amount of money which will be allotted for the building of the Milwaukee harbor by the federal government, the latest figure being \$325,000 for construction work and \$20,000 for maintenance. This sum is believed to be all that can profitably be spent in the Milwaukee district this season.

Wisconsin farmers will have something new at Madison in February when the first course ever to be offered in electric farming will be provided. The class will be devoted to a study of all the labor saving devices which can be used on the farm to good advantage and which are run by electricity. Classes will be held in the agricultural engineering building at Madison. Only two other schools in the United States are now offering instruction on how to use electricity more extensively in profitable farming.

More than 1,000 farmers took part in a huge meeting for study of farming held in West Allis. Prizes were awarded in many fields of rural competition. Irwin Hartman took first prize in field corn, and George Fessenbecker took second in corn. William Basse took first prize both for barley and oats. Fremont Conrad took second in the oats competition.

NEW YORK

C. K. TRAFTON - CORRESPONDENT

ACCORDING to gossip recently heard on the N. Y. Produce Exchange, efforts to provide a market for trading in unlisted or "over-the-counter" securities will probably meet with success. It is said that the committee which has been working on the project has found the plan feasible and has only to perfect arrangements to begin trading, probably in the fall. While details of the plan were not disclosed, it is understood that about 50 securities are being investigated with a view to providing market machinery along the lines in operation on the New York Stock and Curb Exchanges. Report has it that the associate memberships will be dropped and that \$10,000 in stock of the Exchange will be issued to each member, putting them all on an equal basis. Gossip also persists regarding a project to erect a new building on the present site.

As an indication of the optimism prevailing regarding the proposed unlisted security market on the N. Y. Produce Exchange it is pointed out that practically all the applicants for membership who were elected at the last meeting of the Board of Managers were representatives of investment or stock and bond brokerage houses. The list included: William J. Gallagher of Logan & Bryan; Jacob Bleibtreu of Abraham & Co.; Roland L. De Haan of Mabon & Co.; John L. Ferguson of Benjamin & Ferguson; Roscoe C. Ingalls of Ingalls & Snyder; Frank E. Jackson of Bruning, Jackson & Co.; Frank D. Potter of Pouch & Co.; Ferdinand Richter of Fuller, Richter, Aldrich & Co.; George F. Rothschild of Henry Hentz & Co. It is stated that 40 representatives of such houses have joined the Exchange during the past few months, bring-

ing the total of security houses holding memberships up to about 140.

Leslie F. Gates, former president of the Chicago Board of Trade and a member of the commission firm of Lamson Brothers & Co., spent a few days last month with his many friends on the N. Y. Produce Exchange.

A. Ettinger, for a number of years prominently identified with the grain trade on the Produce Exchange, but now located in Chicago, was on the Exchange floor for a short time last month and received a hearty welcome from his old friends and associates.

The market for memberships in the N. Y. Produce Exchange has been somewhat less active of late, but the tone remains decidedly firm. After reaching a new high record level for all time of \$7,300, regular tickets sustained a moderate setback under speculative profit-making, but later the advance was resumed and the last sale reported was at \$7,200. Associate tickets also reacted slightly after making a new high mark, but on the last sale they again reached the "peak" price of \$4,700.

Many of the applicants for membership in the N. Y. Produce Exchange awaiting action by the Board of Managers are representatives of the so-called Wall Street houses, investment bankers, stock and bond brokers and security dealers. Those now appearing on the list are: George F. Bauerdorf of Bauerdorf, Robinson & Co.; Charles M. French of Chas. M. French & Co.; James H. O'Neil of Goodbody & Co.; Harold S. Bache of J. S. Bache & Co.; William N. Enstrom of the American Exchange-Irving Trust Company.

The alleys engaged by the N. Y. Produce Exchange Bowling League have been kept busy every Thursday night by the many members competing for the handsome prizes offered for various records or getting into shape for the match games to be rolled against other organizations. Harry Gere, the team's "anchor" man, put up the high net score of 245, but Galloway with 221, plus a handicap of 70, seems to have the prize for the season's best gross score safely clinched. Other double-century marks were: Straub 235; Therrien 228-213-200; Keller 232; Connor 223; Farley 215-201; Gerard 215; Gere 212; Wagner 212; Broecker 209; Brendel 201; Hebert 200.

Members of the N. Y. Produce Exchange are looking forward eagerly to the Second Minstrel Show to be given by the Bowling League at the Waldorf-Astoria Hotel on March 20. The many friends who came from other markets all over the country to witness last year's show will be pleased to learn that all hands are confident that this second edition will be bigger, better, and snappier in every way. In addition to many solo numbers and new specialty features, the chorus has been increased to 60 or 70 voices. All the work is in the hands of three professional theatrical coaches who are drilling the minstrels twice a week and promise to put the show over with such speed that there will be ample time for dancing afterwards.

ST. LOUIS

FAIRMOUNT - CORRESPONDENT

A PROTEST was filed against the election of George S. Millner who is president of the Sparks Milling Company of Alton, Ill., and resides in Alton, Ill., on the grounds that he is not a resident of, or permanently doing business in St. Louis, whereas the constitution of the Exchange provides that officers shall be residents of the city of St. Louis or permanently doing business in St. Louis. This charge was investigated and it was decided by President Charles E. Valier that as George S. Millner was an officer of the Millers Mutual Fire Insurance of Alton, Ill., which

has an office in St. Louis, Mo., he might be termed a business resident of St. Louis. It was therefore held that he was eligible to the office.

Ralph N. Guenther is an applicant for membership to the Merchants' Exchange, representing the Ralston Purina Company on transfer from C. J. Phillips.

E. W. Taylor, president of the Nye, Jenks Grain Company of Omaha is an applicant for membership to the Exchange on transfer from F. L. Carey.

A. H. Davis is also an applicant for membership representing Morton & Co., on transfer from E. L. Wagner.

It is with much regret and sorrow we report the death of Mrs. Albert Imbs, the wife of Albert Imbs of the J. F. Imbs Milling Company who departed this life on January 18. She is survived by her husband and two small children.

The banquet of the St. Louis Grain Club will be held on Tuesday, February 14. An interesting program is promised.

Among the many visitors to the St. Louis Merchants' Exchange the following are noted: T. M. Corbin representing B. C. Christopher of Kansas City, Mo., was a visitor on change here on January 27 and 28. Mr. Corbin is a former resident of this city and an old member of the St. Louis Merchants' Exchange being the Merchants' Exchange seed inspector about 35 years ago. Mr. Corbin renewed acquaintance with many of the older members; F. A. Walton of the Farmers Elevator Company of Belleville, Ill., was a visitor on February 8; Fred Morrison of Morrison Bros. of Ramsey, Ill., was a visitor on February 2; W. F. Grauer, former manager of the Farmers Elevator at Palmer, Ill., and well known as a hay shipper was here on February 2; H. P. Irvison of Ogden, Utah, was on 'Change February 2; Vald Klitgaard of Copenhagen, Denmark, was with us on February 4; F. S. Jacobi formerly in the milling business at Edwardsville, Ill., was here on February 3; Lee Jones, a large grain dealer of Memphis, Tenn., was here on February 3 as was C. E. Heckemeyer of Minneapolis, Minn.

E. P. Costello was re-appointed as traffic commissioner for the ensuing year. Mr. Costello succeeded Charles Rippin, who resigned about four months ago.

The appointment of the secretary for the St. Louis Merchants' Exchange will undoubtedly be taken up at the next meeting about the fifteenth of this month.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

THE upturn in the corn market is expected to result in a slightly better demand, according to local handlers. The strong market has also resulted in a better export demand, but it is doubtful if any of the local houses will benefit from export buying. General grain demand has been fair, and likewise there has been a very good demand for stock feeds, poultry feeds, etc., account of small supplies of grain back in the country, and the fact that farmers have been educated to sell corn and feed types of feedings which will bring better results.

Storage stocks at elevators have slumped off during the month as a result of consumption of wheat on the part of the mills. The Kentucky Public Elevator Company reported that storage stocks had been reduced to approximately 300,000 bushels, of which about 250,000 is wheat and 45,000 of corn. Daily handlings are relatively light at 10 to 12 cars.

Corn drying has been active as the best corn arriving is around 20 per cent and going as high as 28 per cent, averages being around 24 to 25 per cent moisture content. It is reported that corn is rather light in weight, other than for excess moisture.

Hay receipts have been very heavy and demand light, handlers reporting that they cannot handle all the hay that shippers are trying to deliver.

Large poultry handlers of the state claim that Kentucky is far behind the procession in scientific handling and feeding of poultry. Whereas egg receipts in the northern and eastern markets have been so heavy as to break the market about 15

cents a dozen, receipts here have been light, as production is poor. The markets here have followed the eastern markets, but not account of local production. Large poultry handlers claim that Kentucky farmers do not feed properly, or provide poultry with the proper sort of runs, scratch pens, etc., for real egg laying.

It would not be at all surprising if within the next few months there will not be a few thousand bushels of grain moving daily into the distillery trade. The R. E. Wathen & Co., interests, Louisville, pioneer distillers, who during the war erected and operated a large corn mill here, recently entered into a merger with a number of the larger distillers, forming the American Medicinal Spirits Corporation, reported as a \$25,000,000 concern, developed to deal with the Federal authorities, in securing and handling contracts to make medical liquor. At any rate a large crew of workmen have been working on the big Wathen plants in Louisville, which are being overhauled and remodeled, or placed in shape for operation, after being down for a number of years. It is a certainty that money would not be expended on such efforts if these interests were not fairly sure of some business in sight.

"Business is not so active, but the general outlook is better," remarked Ed. P. Scherer, of the Bingham Hewett Grain Company, Louisville, who stated that it was felt that the upturn in the market would create better buying.

The Kentucky Threshermen's Association has scheduled a meeting at the Watterson Hotel, Louisville, February 13-14, at which the principal discussion will be in connection with legislation that the association is seeking to enact at the present session of the legislature, to provide amendment to the gasoline road tax that would permit use of gasoline, fuel oil, etc., in tractors, farm equipment, etc., without paying the state road tax, no provision having been made for the agriculturist. Another bill would amend the road laws so that thresher equipment could use any road of the state, where there were no other roads available, in going from one farm to another to reach unthreshed grain. A bill now in the legislature would provide heavy penalties for stripping or damaging farm machinery, threshing machinery, etc., on farms or roadsides.

H. E. Dyer, owner of a feed store at 320 West Main Street, New Albany, Ind., recently suffered three broken ribs, when his auto skidded from the road and ran into a stump.

The old Government grain warehouse and 50-foot elevator at Camp Taylor, Louisville, used during the war period, and later sold to private interests, was destroyed in a recent blaze. The building had not been in use for some time.

Following the failure of three brokerage houses in Louisville, two of which handled considerable grain dealings along with stocks, bonds, etc., the legislature has enacted a new law, under which brokers will operate under one of the banking laws, which prohibits acceptance of cash or securities of customers on deposit, when the management knows the concern to be insolvent, and providing penalties for violation. The house of George Wood & Sons recently failed, owing around a million dollars. Two members of the concern were convicted and sentenced to a year and a half each, it being proven on the stand that they had misused customers' securities.

Winter wheat in Kentucky and Southern Indiana has not met with favorable growing conditions, and farmers report the outlook for a good crop is not favorable. Severe weather early in January, without snow protection, and a long series of frosts and thaws has resulted in wheat and other winter grain fields looking poor.

KANSAS CITY

B. S. BROWN - CORRESPONDENT

THE 1928 committees of the Kansas City Board of Trade have been appointed. They are as follows: Appeals: B. L. Hargis, chairman, H. J. Smith, H. J. Thresher, C. M. Hardenbergh, S. H. Miller. Arbitration: S. S. Carlisle, O. T. Cook, Geo. L. Davis, M. H. Howard, H. G. Stevenson. Bond and Insurance: W. W. Marshall, chairman, P. D. Bartlett, S. B. Gregg. Building: E. O. Bragg, chairman, James Russell, W. C. Goffe, F. C. Hoose, J. E. Rahm. Business Conduct: C. W. Lonsdale, chairman, J. E. Rahm, B. C. Moore, L. S. Mohr, J. A. Theis. Cash Margin: E. H. Sullivan, chairman.

S. G. Cronin, E. H. Reed. Coarse Grain Cash Sales Adjustment: T. A. O'Sullivan, chairman, F. T. Kane, Paul C. Trower, W. W. Fuller, E. C. Hoebel. Wheat Cash Sales Adjustment: H. G. Stevenson, chairman, E. F. Emmons, E. C. Meservey, Jr., W. B. Young, C. E. Watkins. Complaint and Investigation: W. H. Marshall, chairman, W. C. Hoover, Tracy L. Cockle. Elevator and Warehouse: F. C. Vincent, chairman, H. C. Gamage, N. F. Noland. Finance: F. G. Crowell, chairman, G. H. Davis, J. E. Rahm, H. Vanderslice, H. F. Hall, L. S. Mohr. Floor: E. C. Hevel, chairman, J. B. Mitchell, E. C. Meservey, Jr. Flour: H. P. Ismert, chairman, H. G. Randall, R. W. Amerline. Future Trading: J. H. Woolridge, chairman, K. G. Irons, A. J. Izard, H. H. Hodgson, W. H. Burns. Insolvency: B. C. Moore, chairman, H. B. Ragan, Stanley Christopher. Inspection and Sampling: S. H. Miller, chairman, F. C. Davis, Dewey E. Walter. Interpretation of Rules: F. W. Lake, chairman, W. G. Hoover, O. A. Severance, L. A. Fuller, John Stark. Legislation: C. W. Lonsdale, chairman, H. F. Dittenbaugh, vice-chairman, H. C. Gamage, J. S. Hart, W. C. Goffe. Market Extension: James N. Russell, chairman, K. G. Icons, C. D. Couthorn, J. K. Christopher. Market Report, Cash: R. H. Sturtevant, chairman, E. M. Jolley, B. C. Christopher, Jr. Market Report, Futures: H. F. Spencer, chairman, E. E. Klecan, P. E. Powers, F. P. Logan. Membership: H. C. Gamage, chairman, F. A. Theis, vice-chairman, R. J. Thresher, G. W. Hinsin, N. S. Shannon. Protein: W. C. Bagley, chairman, H. E. Merrill, R. E. Swenson. Radio: William Murphy, chairman, H. E. Poor, H. A. Fowler. Rules: W. B. Lathrop, chairman, Merle Howard, F. L. Ferguson, E. L. Love, H. A. Fowler. Scale: O. T. Cook, chairman, H. E. Poor, Geo. P. Payne, C. C. Ragan. Tax: Stanley Christopher, chairman, J. J. Wolcott, B. C. Moore, C. K. Davis. Telephone and Telegraph: E. O. Bragg, chairman, W. J. Mensendieck, F. J. Fitzpatrick. Transportation: C. W. Lonsdale, chairman, W. B. Lathrop, vice-chairman, O. A. Severance, N. E. Carpenter, H. A. Merrill, R. A. Kelly, J. Juul. Waterways: T. J. Brodnax, chairman, R. T. Morrison, A. L. Ernst, H. T. Fowler, S. S. Carlisle.

The National Milling Company of Toledo, Ohio, a subsidiary of the National Biscuit Company, recently purchased a site in North Kansas City where they will begin construction shortly on a flour mill and elevator. The location is just east of the new Corn Products Company plant, and the site was bought for \$35,000. The elevator will have a storage capacity of 500,000 bushels, and the mill will have a capacity of 1,500 barrels daily with the completion of the first unit. Plans are to double this capacity in a short time, however. The investment in the plant will be around \$750,000, it is estimated. Engineers of the National Milling Company are now drafting plans for the new plant, and construction will begin as soon as the plans are completed. Harvey J. Owens, vice-president of the company, will be in charge of the plant here when it is completed.

The Monthly Review of the Tenth Federal Reserve District for February 1 gives a review of the returns for the year 1927 as compared with those for 1926. It shows Winter wheat for 1927 240,616,000 bushels compared with 283,469,000 for 1926; Spring wheat 12,929,000 for 1927 against 10,500,000 for 1926; corn 622,643,697 in 1927 against 308,674,000 in 1926; oats 140,323,000 in 1927 against 143,132,000 in 1926; barley 26,965,000 in 1927 against 20,176,000 in 1926. Grain receipts in five markets: Wheat 175,945,000 bushels in 1927 against 183,387,750 in 1926; corn, 59,964,350 bushels in 1927 against 50,535,000 in 1926; oats, 13,030,000 bushels in 1927 against 14,051,000 in 1926.

The Review states that the arrivals of grain at five leading markets in the tenth district during the calendar year 1927 represented the largest volume of grain business handled in any year since 1924. Total receipts of six classes of grain at these markets were 260,376,000 bushels, 4,968,650 bushels more than in 1926, and 25,102,550 bushels less than in 1924, the high record year. The annual statistics reported by the five markets show the year's receipts of wheat were 4.1 per cent smaller and of oats 7.3 per cent smaller than in 1926. On the other hand the year's receipts of corn showed an increase of 18.7 per cent over the preceding year, while rye increased 17.4 per cent, barley, 19.1 per cent, and kafir, 38.6 per cent.

R. D. Crawford of the Farmers Union Jobbing Association, has applied for membership on the Kansas City Board of Trade on transfer from L. F. De Voss of the same company. Mr. Crawford has been with the association for five years and will now represent them on the floor. There was no consideration involved.

Lawrence J. Thurn, of the Crittenden Grain Company of Lincoln, Neb., has been elected to membership on the Kansas City Board of Trade. The application was made on transfer from W. E. White, formerly with the Armour Grain Company.

February 15, 1928

The Armour Grain Company has disposed of all memberships on the Kansas City Board. Mr. Thurn will represent the Crittenden Grain Company on this Board, but will have his office in Lincoln, Neb.

* * *

Announcement has been made that the 275,000-bushel grain elevator of the Chicago & Alton here will be enlarged early this summer. This elevator of the C. & A. is operated by Wolcott & Lincoln. The plan is to double the capacity of the elevator.

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Officers of the Grain Clearing Company, recently elected are: C. W. Lonsdale, president; J. J. Wolcott, first vice-president; W. J. Mensendieck, second vice-president; H. F. Spencer, secretary and treasurer; and George G. Lee, manager.

DULUTH

S. J. SCHULTE CORRESPONDENT

NO TRANSFERS of memberships or changes in managements of Duluth elevator and commission houses were reported here during the last month. Grain men on this market claim to be sitting tight pending developments in the legislative program at Washington. The possibility of the McNary-Haugen Bill being passed by the Senate and House of Representatives and becoming law over the President's veto is regarded as not so much in the offing as it was a year ago. Other proposed bills are being given close attention, as it is felt that the passage of any one of those being considered would so shackle the operations of the grain exchanges that they might be unable to function in the marketing of the season's grain crops. Under the circumstances operators claim to be unable to find any incentive to make their plans until they know better the nature of the restrictions, if any, that the trade may be called upon to face.

* * *

Operators here were greatly interested in the intimation from Cleveland that navigation on the Great Lakes for American boats will not open before midnight of April 30 this year as the result of an agreement just made by the leading eastern vessel owners. At the same time the opening freight on wheat has been set at 3 cents a bushel from Duluth to Buffalo and at 2½ cents a bushel from Duluth to Georgian Bay ports. Although that action was taken by vesselmen to avoid the heavy costs sometimes caused by ice and weather conditions during the early days of navigation, it has been pointed out by interests here that the plan would considerably embarrass Duluth grain dealers and it is hoped that the matter will be reconsidered. In that connection the point is stressed that for more than 30 years the opening of navigation at Duluth has been determined by the time of the arrival of the first boat from Lake Erie in the Duluth harbor. Sales of grain made to go on the opening of navigation had, according to the rules, 10 days following that in which to be shipped. Failing reconsideration of the action taken, grain dealers here claim they would be unable to make sales on the terms that have always prevailed that are fully understood by the trade, but that they would in future have to based on 10 days following May 1 unless the first boat should not have arrived by that date, in which case shipments would be made 10 days following the actual opening.

Another serious mixup introduced by the agreement would be that it would not apply to Canadian vessels so that they would have the advantage of opening navigation and bidding for first shipments without American competition.

Besides weather condition the vessel owners gave as their reasons for making the change that when the navigation season starts early, it has been found that traffic falls off after the first six weeks or so, necessitating the laying up of many steamers for indefinite periods. They think that a later opening would do away with much of that disadvantage.

It is also contended by grain men here that the principal losses to shipping have usually occurred during the late fall period owing to the anxiety of owners to get the higher freight rates ruling during December. Many ships have consequently been started from the Upper Lakes for Lake Erie ports during bad weather in the closing period of navigation and have run risks that are rarely experienced even on the Atlantic and Pacific. As an example of that, it was pointed out that 24 boats are at present tied up at Sault-Ste-Marie with grain cargoes, having sailed during the worst weather period that had prevailed on the lakes during December in many years. Several steamers were besides wrecked during that period,

and millions of dollars were lost to the owners and insurance companies as a result.

Interests in the grain trade here further claim that early spring sailing is not nearly as hazardous, for though deep ice and bad weather may be encountered during April, the boats have all the season before them and it is only a short time before they are released from ice blockades and are able to proceed. They besides contend that the setting of the opening of navigation date at April 30 may in the end prove to be nothing more than a gesture for the reason that the large Canadian steamers would offer competition. It is taken for granted that vessels of their fleet will be ready to start out from their Head of the Lakes with grain cargoes on April 15, when their insurance rates will become effective. That action would, it is claimed, be forced through the pressure of shippers up there who are anxious to get their large surpluses of tough wheats out of the country while the weather is cool. They could not run the risk of holding that grain over in view of the heavy deterioration likely to occur in the event of its being held after warm weather sets in. It is also claimed that Canadian vessel men may set a lower opening of navigation rate, that depending upon how trade conditions may happen to be at the time. The Canadian boats might be expected to get business from here in the event of a cut being made to Georgian Bay ports.

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At the annual meeting of the Duluth Grain Merchants Association, T. F. McCarthy was elected president; Carlisle Hastings, vice-president; and Fred Carlson, secretary. Frank W. Falk and B. C. McCabe are directors.

* * *

Members of the Duluth Board of Trade, have occurred in a recommendation of the Board of Directors raising the annual assessments upon memberships to \$150, an increase of \$50. The change was prompted by the fact that for several years the assessment of \$100 had not been sufficient to provide the fund required for operating the Board, and that the deficits had to be met from other earnings.

* * *

Many elevator and commission men here are preparing for vacation trips to various winter resorts. Herbert Spencer, secretary of the Consolidated Elevator Company, is taking a vacation at Palm Beach, Fla., and H. J. Atwood of the Atwood Larson Company is taking the Mediterranean trip, during which he is scheduled to visit Jerusalem and other points in the Holy Land. James Graves, manager of the Capitol Elevator Company, is planning a trip to New Orleans, where part of his program will be to play the ponies as on previous visits down there. W. J. McCabe is spending a vacation at Pasadena and other California points.

* * *

Commission men at Duluth figure that 18,000,000 bushels of Durum wheat remains to be marketed over the Northwest. That with 7,125,000 bushels in store at the Head of the Lakes, and 3,000,000 bushels held at the seaboard, will bring the quantity of that grain from last year's crop remaining to be handled this spring up to 28,000,000 bushels. Specialists are hoping that sufficient milling and export demand for Durum will develop to hold prices up at around their present level. In view of the results that have been attained in raising Durum wheat and the liberal premiums that have been realized on its higher grades to provide for the manufacture of special flours, farmers are being encouraged to raise their acreages seeded to it this spring. Duluth grain men have been specializing in that wheat to a great extent during the last several years.

* * *

R. M. White, of the White Grain Company, noted an improvement in inquiry for oats and other coarse grains from outside points which he attributed to the steady development of the dairying industry. Business of dealers in the hay market over northern Minnesota has however faded away to a shadow, he said, owing to the small number of horses remaining in the cities and towns and the fact that loose hay is being delivered from the country at points where jobbers had previously found a ready market for baled hay.

* * *

Frank Tenney, of the Tenney Company, has returned from a trip to New York and Boston. Besides his firm's grain business in Duluth, Mr. Tenney operates a rubber business in Boston. He asserted that trade in the East is picking up and that manufacturers and goods' distributors are generally optimistic over the outlook for the first half of the year.

* * *

Elevator men at Duluth and Superior do not now entertain any apprehensions on the score of inability to handle any movement of grain from the country likely to develop between now and the opening of navigation. Stocks in the elevators now aggregate 20,250,000 bushels. While their rated capacity is 38,000,000 bushels. The opening of a

good rail movement from the elevators here to interior mills is regarded as an interesting development on this market. On one day recently nearly 200,000 bushels were loaded out in cars and dealers had orders in hand for considerable more to go out under March delivery contracts. Operators are sanguine that the demand for high grade protein grain will continue active as an outgoing run to the mills would better enable them to get out after holdings in interior elevators and in farmers hands during the early spring period. Elevator stocks here as on February 10, included: Spring wheat, 8,170,000 bushels; Durum, 7,300,000 bushels, and Western and Winter wheat, 1,147,000 bushels. Holdings of coarse grains are light, as compared with previous seasons, with oats at 381,000 bushels; rye, 1,979,000 bushels; barley, 219,000 bushels, and flax, 914,000 bushels.

* * *

F. E. Lindahl, Cargill Elevator Company, and other specialists in rye on this market are looking forward to an expansion in the acreage seeded to that crop this spring as a result of good prices having been realized in it by growers. The handling of rye is claimed to have been a profitable one for Board of Trade operators during the present season and with attractive possibilities being figured out for it in export channels, operators are planning to get out after that trade more earnestly during the new crop year.

* * *

Progress is being made by the contractors in dredging the foundation and driving piles for the 270 concrete bins addition to the Great Northern railroad's elevator system at Superior. The contract for the super-structure has been awarded to the Barnett & Record Company, Duluth. The prospect will entail an investment of \$800,000 and will bring the storage capacity at the elevator plant up to 10,000,000 bushels.

INDIANAPOLIS

H. M. RUDEAUX CORRESPONDENT

HEAVY shipments of corn during the latter part of January have fallen off considerably, which is due to the mild weather, and the condition of roads in the country. Farmers have been warned by road supervisors not to use the roads for heavy hauling, with the result that grain shipments have diminished, and now averaging only 60 to 80 cars a day. The top figures during the month of January on shipments of corn was 230 cars. Some of the grain dealers believe the big movement of corn is over, and others say shipments will increase again when the roads are in shape, and heavy hauling is permitted. The largest percentage of the shipments are grading Sample because of moisture content. Some are grading No. 5 and 6 with an occasional car of No. 4 corn. One of the outstanding features is that none of the arrivals have graded sour. Receipts are well taken care of in spite of the advancing market. The demand has been good.

* * *

Oats are coming in at the rate of 15 cars a day, and with the approaching seeding season at hand heavy oats are finding a ready market. The demand has been very good. Wheat is in good demand with few arrivals. The general report of crop conditions is anything but favorable. There is a lot of apprehension concerning winter killing, especially in the southern part of the state, while the northern part reports more favorable conditions on account of having had heavy snow falls. Many fields in the lowlands have been under water and reports from sections where this condition prevailed are not encouraging. There will be a large percentage of the acreage winter killed.

* * *

Elevator "B" of the Cleveland Grain & Milling Company is running day and night trying to clear their tracks of new corn, said Dale Phillips in the absence of E. K. Sheppard, manager, who is at present attending the Illinois farmers convention at Springfield, Ill. The light receipts at present will help us to clear our tracks and relieve the congestion at the elevator, said Phillips where at this time 100 cars of corn are waiting to be dried. Arthur Swanson of the Kendrick & Sloan Company, Inc., reports a good demand for wheat from small mills at interior points. However, the demand for good sound ear corn is increasing daily. The demand for good Timothy hay from the East and Southeast is very good, with light arrivals, and prices and quotations firm.

* * *

Many shippers have had unsatisfactory experience in the collection of drafts with or without bills of lading attached. Banks and other agencies have failed and the proceeds of collections in their hands gone into the common fund thereof, and

drawers share in the bank's assets only as general creditors, notwithstanding they should, and would have been preferred, if the drafts were properly endorsed, as suggested by the Indiana Grain Dealers Association. All members of the association have been supplied with the proper endorsement through the office of the secretary of the association, Chas. B. Riley; "This draft is placed in the bank for collection only, and is not to be treated as a regular deposit. The funds obtained through its collection are to be accounted for to us and are not to be commingled with other funds of collecting banks."

Walter Hungerford of Shelbyville, Ind., chairman of the Agricultural Committee of the Indiana Bankers Association, informed the association, that if the corn borer destroys the Shelby County corn crop, the loss in one season would be more than \$2,500,000, and, with 92 counties in Indiana, most of which grow corn on a considerable scale, the aggregate damage possible is enormous.

Five new members were elected to the Indianapolis Board of Trade at a meeting of governors Monday night February 6. Those elected were: Byron K. Elliott, judge of superior court; Roy N. Downs, of the American Radiator Company; Howard A. Koch, of the Pennsylvania Railroad; O. C. Shirley, Knightstown, Ind., grain dealer; and Peter P. Triller, secretary of the Wadley Company. Reports were made by Linton A. Cox, chairman of the Finance Committee; Joseph C. Gardner, chairman of the House Committee, and Victor C. Kendall, chairman of the Membership Committee. E. Clifford Barrett, president, presided.

OMAHA

B. O. HOLMQUIST CORRESPONDENT

THE movement of corn in northeastern Nebraska has shut off sharply due to a sleet and snow storm lasting two days, Sunday and Monday, February 5 and 6. There was a snowfall of six to eight inches on the level followed by sleet and telephone wires have been down all week in some sections. Warm weather followed later in the week and roads, except graveled highways are now impassable on account of the slush and mud. There has been a good demand for corn in Omaha and as a result of the light movement, prices compared with the futures advanced two to three cents. However, due to the sharp advance, demand fell off somewhat toward the end of the week, and tone of the cash market on Friday and Saturday was easier.

E. A. Beardsley, formerly secretary of the Merriam & Millard Company which went out of business a few years ago, and more recently operating a brokerage business under his own name, died Thursday, February 9, at his home after a long illness. Mr. Beardsley was a member of the Omaha Grain Exchange for over 20 years and was very well known in all parts of the country as a specialist in both corn and oats. Funeral services at his home in Dundee, on February 11, were attended by a large number of friends and neighbors, as well as by practically every active member of the Exchange. Flowers were sent from business associates in markets in all sections of the country. Mr. Beardsley is survived by his widow and two daughters, Ruth and Margaret. He had reached his forty-eighth birthday just a few days before his death.

Boxes of their new product, "Crispy Corn Flakes," were passed out to everyone on the trading-floor, February 9, by Max Miller of the Miller Cereal Mills. The new plant is now ready for operation and will be operating at full capacity within a very short time. The new product, which is packed in a very striking red and yellow carton, rounds out the Miller-Made line of corn products, and met with much favor in the trade here.

Higher prices the past week or two brought about a slightly heavier run of oats to Omaha with the result that No. 3 White oats, which were selling a week ago at 1½ cents to 2 cents under the Chicago May option, are now selling at 2¼ cents to 2½ cents under. However, choice No. 2 White oats, due to the spring demand for seed oats, went to higher premiums, and fancy oats will now sell at Chicago May price in this market.

After three rounds of play in the Omaha Grain Club annual bridge tournament, G. F. Dristy and H. R. Clark are in the lead with a score of 49 hands won. H. A. Butler and O. M. Smith are second with a score of 48; R. E. Miller and O. H. Gibbs

third with 46; H. R. Caldwell and B. O. Holmquist fourth with 45; D. P. Moore and J. W. Holmquist fifth with 41. The final round of 20 hands will be played Thursday, February 16. Cash prizes will be won by the two high teams and there will also be prizes for the low scores, where the competition is even keener than at the top.

Premiums are lower on all kinds of wheat than they were a week or two back, but the decline has been much more marked in the lower protein classes than in the choice milling varieties. Mills are still actively in the market for wheat of good quality and good protein test.

Members of the Exchange were greatly interested in a large sample of bin-burnt oats from an elevator in northeastern Nebraska. Due to the presence of a pocket of wet weed-seed and other foreign material in the center of a bin containing about 20,000 bushels of oats, the oats started to heat and finally began to smoulder. They did not burst into flame due to the fact that the large amount of oats in the bin kept sufficient air from reaching the "hot-spot." After laying fire-hose and preparing to keep the fire from burning the elevator, the owners started to empty the bin. About 5,000 bushels of the oats were badly burned and charred and congealed into a solid mass which had to be removed with pick and shovel. Prompt action in unloading these oats as soon as the incipient fire was discovered saved the elevator and as the grain was fully covered by insurance, the loss to the owners was comparatively small.

W. J. Hynes, Sr., of the Hynes Elevator Company is spending a few weeks in California.

J. L. Welsh of the Butler-Welsh Grain Company, accompanied by Mrs. Welsh, returned this week from a three weeks trip to Biloxi, Miss., and other southern points.

A. R. Kinney, president of the Nebraska Consolidated Mills, together with Mrs. Kinney is spending a month in the West Indies, and will also stop for a short time in the Bermuda Islands.

A number of local grain dealers attended the annual meeting in Denver of the Colorado Grain Dealers Association during the last week in January.

Three days of snow and rain during the first week of February have caused a cessation of the many reports which have been coming in of damage to the growing crop of wheat. While there has, no doubt, been considerable damage due to winter-killing, it is felt that this moisture will help a great deal to carry the wheat through to spring without any very great loss.

BUFFALO

ELMER M. HILL CORRESPONDENT

GORDON STEELE as referee in the mortgage foreclosure proceedings instituted by the Manufacturers & Traders-Peoples Trust Company of Buffalo will sell at public auction at 2 P. M., March 5, the Great Eastern and the Dakota grain elevators in the Buffalo Harbor. The former has a storage capacity of 2,250,000 bushels and the latter has a capacity of 1,250,000 bushels. Included in the sale will be the docks, machinery, equipment and all other assets of these two big grain elevator properties together with certain rights to operate railroad switches upon the premises. Locke, Babcock, Hollister & Brown are attorneys for the bank which is foreclosing the mortgages upon the properties as the result of an alleged default in the payment of principal and interest. Considerable interest is being manifested in grain and elevator circles in the sale and it is reported there will be much competitive bidding for the two properties. The mortgage against the Dakota elevator is for \$1,000,000 while the mortgage against the Great Eastern grain elevator is for \$1,250,000.

Announcement is made by the A. E. Baxter Engineering Corporation of Buffalo that work has been started on the new Hecker-Jones-Jewell Grain Elevator on the Buffalo River at St. Clair Street, plans for which were filed with the municipal authorities some time ago. This unit will have a capacity of approximately 3,000,000 bushels. It will be of concrete and will have two marine legs. The main building will be 78 feet long with an area of 43,000 square feet of floor space. The James Stewart Corporation has been awarded the contract for the work. This will be the first in a series of new units to be built for the Hecker-Jones-Jewell Mill-

ing Corporation and as soon as the elevator is completed, the company will start construction work on a new flour milling unit.

Roy V. Craig, former traffic commissioner of the Millers Traffic Committee, has been appointed traffic commissioner of the Buffalo Corn Exchange. Mr. Craig, who is well-known in grain and elevator circles in Buffalo, also served as traffic manager of the L. R. Steel Company, which was liquidated in bankruptcy. He is a native of Buffalo.

W. F. Fawcette, noted Canadian grain expert who manages the cargo brokerage offices of Boland & Cornelius, Buffalo vessel owners, and agent at Winnipeg, Man., was a visitor in the local grain market early this month. For 15 years Mr. Fawcette was manager of the Canadian Government grain elevator at Port Colborne, Ont., until four years ago when he resigned to represent Boland & Cornelius at Winnipeg. He expressed the belief that there will be a very active movement of grain down the Great Lakes from Canadian ports early this season provided ice conditions are favorable so as to allow the fleet to get an early start. The lateness of the Canadian crop last fall, Mr. Fawcette said, forced a large amount of grain to be carried over by terminal elevators at the Canadian Head of the Lakes. He also looks for a good movement of grain via the all-Canadian route through the Welland Canal.

Willis B. Combs, grain supervisor for the United States Department of Agriculture at Buffalo, was elected president of the Federal Business Association at its annual meeting in the Chamber of Commerce. Mr. Combs is well known in grain and elevator circles at Buffalo and is exceedingly popular with everyone with whom he comes in contact. His elevation as head of the Federal Business Association, a social organization of government employes in Buffalo, reflects his popularity.

Lincoln Richards of New York has been appointed receiver by Justice Samuel J. Harris in Supreme Court at Buffalo to handle all the affairs of the Dakota and Great Eastern Elevator corporations. According to Edward H. Letchworth, attorney representing Mr. Richards and the bondholders, two committees of bondholders have been appointed as an initial step in a proposed reorganization plan. George E. Pierce of Buffalo, who for many years has played an active part in grain and elevator affairs in this city, is president of the Great Eastern Elevator Corporation, James E. Finley is general superintendent of the Dakota Elevator Corporation, and John H. Brinkworth is secretary and treasurer of the Western Elevating Association, which also is involved in the proceedings. Mr. Pierce says the court proceedings were in the nature of a friendly arrangement for the improvement of both elevator properties.

Out of a fleet of 81 ships carrying winter storage at Buffalo, only 31 remain to be unloaded at terminal elevators. The 50 boats which had discharged their cargoes up to the tenth of the current month keep the elevators working at normal capacity in December, January and the first half of February. All of the vessels will be ready for the opening of the season.

American vessel owners which control practically all of the wild tonnage on the Great Lakes have agreed that no vessel shall sail with grain from the head of Lake Superior before midnight April 30, and that the opening grain rate on wheat from Duluth to Buffalo shall be 3 cents a bushel and 2½ cents to Georgian Bay ports. The opening of navigation on the Great Lakes dates from the arrival of the first boat in the Duluth-Superior Harbor from the lower lakes. Contracts usually are dated "opening of navigation," with the understanding that shipments will be made within 10 days after the first arrival. If this new policy of the vessel owners is carried out, it is said a great deal of embarrassment may arise in the grain trade. The reason given for this reversal of customs is that owners wish to avoid the expensive operations encountered in early sailing. Grain men, on the contrary, say it is not the early start which drives up the overhead but the late sailing when boats go after high rates regardless of hazards. Canadian vessel owners have not consented to this agreement and so grain can be sent forward from the Canadian head of the lakes at an earlier date than from Duluth.

John J. Rammacher, president of the Buffalo Corn Exchange and vice-president of the Eastern Grain, Mill & Elevator Corporation operating the Central-Concrete, Electric, Connecting Terminal and Mutual Elevators, believes that the tonnage of the Port of Buffalo is seriously affected by the recent reduction of Canadian freight rates on grain, authorized by the Board of Canadian Railway Commissioners, and which is effective from the Prairie Provinces to Canadian Atlantic and Pacific seaboard.

MINNEAPOLIS

ALBERT W. MORSE CORRESPONDENT

WITH the excavation for the new building of the Chamber of Commerce of Minneapolis almost completed on February 11, the vicinity had assumed an unusual appearance. Bonds to the amount of \$625,000 have been issued, and have sold at slightly over 99 per cent, the rate of interest being $4\frac{1}{2}$ per cent. It was originally intended to issue \$700,000 in bonds, but the bids were lower than was anticipated. The general contracts have been let, and the building is to be ready for occupancy on or before July 31, 1928.

B. F. Benson, Benson-Quinn Company, was again the chairman of the annual Y. M. C. A. finance drive in Minneapolis, which started on January 16, and which was entirely successful.

S. J. McCaull, secretary, The McCaull-Dinsmore Company, and manager of the Duluth office of the firm, and Mrs. McCaull are expected to return about the first of March from Long Beach, Calif., where they are visiting the mother of Mrs. McCaull. During the past 10 years it has been their custom to spend about six weeks in Long Beach each year.

Frank H. Higgins Company and Louis N. Ritten & Company were granted the privileges of corporate membership in the Chamber on January 12. On this same date F. B. Jaffray was granted permission to trade on the floor exclusively in the name of the Marfield Grain Company. A membership standing in the name of G. M. Charles was transferred on January 24 to J. R. Marfield. H. M. Cummings was granted a traveling representative license on February 9 so that he might represent The Tenney Company. Under date of February 9 notice was made that the membership in the name of T. F. Armstrong now is the property of the Union Elevator Company and that the Brooks Elevator Company has no further interest in it.

The Marfield Grain Company on February 10 sold a quantity of Spring wheat to go into the Panhandle section of Texas, the district which has been perhaps the driest in Texas since the last crop.

H. J. Atwood, president Atwood-Larson Company, grain commission, and Mrs. Atwood, sailed on February 7 on a Mediterranean cruise, to be gone two or three months.

Minneapolis Grain Commission Merchants Association on February 23 is to give its annual dinner for the members of the Minnesota Farmers Elevator Association, who are to have their annual convention in Minneapolis at that time. There are 34 members of the commission merchants' organization and J. H. McEnary is secretary.

J. W. Greer, vice-president, Marfield Grain Company, returned the first of February from the South where he spent most of January in Oklahoma and Texas on a business trip.

At a meeting of the Board of Directors of the Chamber, held on January 12, the following report of the rules committee of the directors was adopted:

The committee, to which was referred the letter of the Miller Elevator Company, dated November 28, 1927, begs leave to report that it has considered this letter, which directed attention to the losses suffered by sellers of grain in this market, due to demurrage charges resulting from cars being "run through" at terminal elevators or mills, on account of disputes as to protein content, dockage, etc.

The committee is unable to suggest any rule or regulation with reference to this matter, but in the opinion of the committee a substantial reduction in these losses would result if the operators of terminal elevators, or mills, would make every effort possible to examine cars promptly after their first delivery upon the tracks of the elevator or industry, or upon the railroad tracks immediately adjacent thereto, for the purpose of determining whether the contents of the cars were, or were not, in harmony with the sale sample.

The committee therefore recommends that the Board of Directors address a communication to the operators of terminal elevators, mills and other industries in this city urging upon them the desirability of early examination of cars as above mentioned, and co-operation with the sellers, with a view to minimizing, in the utmost degree, losses resulting from demurrage charges as above mentioned.

GRAIN NEWS FROM BOSTON

By L. C. BREED

During January there was a fairly active demand for corn and oats from New England territory. In wheat feeds the demand was moderate owing in part to the comparatively mild weather that pre-

vailed. Offerings were not large, but proved to be ample. There was a better inquiry for corn products and concentrated feeds. No Canadian mill feed was on the market.

Jaquith & Co., dealers in grain feed and flour, Woburn, Man., recently suffered some loss from a fire in their warehouse.

The Marshall Grain Company, Inc., Salem, Mass., has been incorporated with a capital stock of \$15,000. Charles H. Marshall of Beverly is president and treasurer. It will deal in grain, feed, etc.

Silas M. Church, a grain dealer in Worcester, Mass., recently filed a voluntary petition in bankruptcy. His liabilities were given at \$1,135 and his assets at \$615.

John F. Lapham of Lapham & Lapham, Boston, cereal brokers, died at his home in Winthrop Highlands, January 5. He had been a member of the Boston Grain & Flour Exchange since its formation.

Carl J. B. Currie was appointed chairman of the special committee of the Boston Grain & Flour Exchange for the annual banquet which took place on February 7. Other members were: A. W. Godfrey, John H. Lee, Paul T. Rothwell and C. A. Perry. Hotel Statler was selected for the occasion.

An application for active membership in the Boston Grain & Flour Exchange by Charles F. Lingham of the Federal Mill & Elevator Company of Lockport, N. Y., has been filed. H. M. Thompson of the grain and flour firm of Ogden & Thompson also has applied for membership. An application for associate membership has been made by F. G. Slawson of Fayville, Mass., retired.

The annual meeting and election of officers of the Boston Grain and Flour Exchange took place Tuesday, February 7. The following officers were elected: President, A. K. Tapper; first vice-president, Frank A. Noyes; second vice-president, Edward H. Day.

At a meeting of the Directors of the Exchange January 31, C. H. Jaquith was elected a director to fill unexpired term of Charles Varga, resigned.

At the banquet of the Exchange, Julius H. Barnes, head of the Ames-Barnes Corporation of New York, one of the principal grain exporting houses in the country; also President of United States Grain Corporation during the war, was the leading speaker. George Hannauer, President, Boston & Maine R. R. and Nate Fawkes, vice-president, also made addresses and short talks were made by well known gentlemen. Upwards of 400 applications for tickets were received from members and guests.

The daily supplies of hay in the Boston market were ample to fill the moderate demand and prices have ruled about steady. Receipts of hay at Boston during the month of January were 245 cars: Straw, 12 cars.

Stocks of grain at Boston in regular elevators as of January 28 were as follows: Wheat, 871,656 bushels; corn, 6,377 bushels; oats, 55,192 bushels; rye, 1,636 bushels; barley, 148,941 bushels.

The receipts of grain at Boston during the month of January, as tabulated by the Boston Grain and Flour Exchange, were as follows: Wheat, 242,850 bushels; corn, 5,525 bushels; oats, 93,050 bushels; rye, 1,325 bushels; barley, 2,025 bushels.

Among the visitors to the Exchange during the month of January, outside of New England, were the following: Victor Polsky, New York City; Stewart P. Elliot, San Francisco, Calif.; C. E. Lee, Harrison, N. J.; E. J. Grimes, Minneapolis, Minn.; J. H. MacMillan, Jr., H. E. Tweeden, Buffalo, N. Y.; A. J. Oberg, Minneapolis, Minn.; P. J. Haight, Millbrook, N. Y.; W. L. Stephens, Buffalo, N. Y.

THE GRAIN MARKET SITUATION

By G. A. COLLIER

Grain, Hay and Feed Market News Service, Bureau of Agricultural Economics, United States Department of Agriculture.

The grain market situation has not changed materially during the past month. Wheat prices as measured by Chicago May future quotations are practically the same as a month ago. Prices have declined materially at Liverpool reflecting the increased movement of new crop wheat in the Southern Hemisphere but Buenos Aires prices at this writing (February 11) are only about 2 cents per bushel below last month's quotations. Winnipeg

prices also declined about 2 cents influenced by the competition from Argentine wheat. The corn market has held quite firm notwithstanding the heavy movement during the first two weeks in February and at this writing May corn at Chicago is about 2 cents per bushel higher than a month ago. The market for rye and oats has been dull but the demand for barley continues active and prices have held firm. The flax market has worked slightly higher influenced by a fairly active demand for the smaller offerings.

Shipments of wheat from Argentina and Australia have totaled around 10,000,000 bushels per week since the middle of January. Increased shipments from Argentina have been somewhat offset by smaller shipments from Australia but total shipments from these countries since the first of January have totaled about 4,000,000 bushels more than for the same period last season. Ocean passage stocks have been increased rapidly as a result of these heavy shipments from the Southern Hemisphere, but at this writing stocks afloat are practically the same as a year ago.

The larger supplies of wheat in prospect for European markets not only lowered prices of wheat at Liverpool but also prices of native wheats in the principal European markets. On February 10 prices of native wheat at Hamburg were about 5 cents lower than at the middle of January, at Paris about 4 cents lower and at Milan about $4\frac{1}{2}$ cents lower. Sixty-four pounds Rosa Fe wheat was quoted at Liverpool February 10 at about 5 cents per bushel lower than a month earlier while No. 2 Hard Winter from the United States was being quoted at practically the same price as at the middle of January.

Domestic wheat markets have held fairly steady for Spring and Hard Winter wheat but have advanced for Soft Winter wheat. Premiums for high protein have been reduced slightly recently for both Hard Red Winter and Dark Northern Spring wheat, but offerings are being well taken by milling industries. At this writing 13 per cent protein No. 2 Hard Winter is being quoted at Kansas City at 20-26 cents over the May price in that market while No. 1 Dark Northern Spring 13 per cent protein is being quoted at Minneapolis at 28-33 cents over the Minneapolis May price. Prices of Durum wheat have declined materially with demand for this class of wheat limited. Mills are taking the good color high protein grade at premiums of about 8-20 cents over the Duluth May price which was quoted February 10 at \$1.20%.

Soft Winter wheat has reached new high prices on the crop at several markets influenced by the relatively light supply and an active demand, particularly from southern mills which must replenish depleted stocks. No. 2 Red Winter at this writing is quoted at St. Louis at \$1.51-1.55, which compares with \$1.50 at Chicago, \$1.49 $\frac{1}{2}$ -1.50 $\frac{1}{2}$ at Cincinnati and \$1.47 $\frac{1}{2}$ -1.48 $\frac{1}{2}$ at Toledo. The falling off in the export demand from Europe has weakened the markets of the Pacific Northwest. Soft and western White wheats were being quoted at Portland February 10 at \$1.26-1.27 while parcels of western Red wheat were being sold to Oriental buyers at around \$1.22-1.22 $\frac{1}{2}$. The wet wheat in that territory is reported to have been mostly disposed of but liberal supplies of good wheat are still available.

CORN MARKET ADVANCES ON GOOD DEMAND

A continued active demand both from domestic and export buyers held the corn market firm during the past month and at the close of the week ending February 11 prices had advanced materially from the quotations at the first of the month. This advance, however, was restricting the foreign demand somewhat, particularly since new Argentine corn for April and May shipment, according to trade reports, was being offered at around 20 cents per bushel below current quotations on United States corn and corn afloat to Europe was being quoted for resale at about 2 cents per bushel below prices at which it could be replaced.

The export demand has been quite an important factor in the domestic market during the past month. The limited amount of corn still available in Argentina and the light shipments from that

country recently have increased export buying of United States corn. While the amounts taken have not been of large volume in proportion to the size of the crop, this buying has supported the market whenever there was a lull in domestic buying and the taking of these amounts off the market stimulated the general market demand.

Growing conditions for the new corn crop in Argentina are reported particularly favorable to date and it appears probable that this season's crop in that country may be fully equal to, or even in excess of, last year's production of 320,850,000 bushels. While no official estimate is yet available of this season's production, the first official estimate of acreage is slightly above that of last year and places the area seeded at 10,608,000 acres. The demand for Argentine corn in Europe has been very active and more than 286,000,000 bushels have been shipped since April 1 from last season's supply, including the 1927 crop and the carryover of old corn April 1.

At this writing European corn is being quoted in Liverpool at about \$1.15½ per bushel compared with \$1.15¼ for United States mixed corn. Exporters are bidding about 4½ cents over the Chicago May price for corn delivered on track at Gulf ports, which would be equivalent to about 98-99 cents per bushel.

Domestic demand for corn continues of a broad general character with industries and feeders in the Central, Southern and Southeastern States taking good amounts from the central western markets. Pacific Coast buyers until recently have also taken good amounts of corn but during the week ending February 11 demand from this territory fell off somewhat. Nearly 40,000,000 bushels more corn have been received at the principal markets of the country since the first of November than for the same period last year. Some of this increase, however, is probably accounted for in reshipments from the more western to eastern markets and has been reported a second time. Stocks in the markets are now 10,000,000 bushels smaller than last season and have not been greatly increased by the recent heavy movement.

Cash prices have followed the changes in the future markets in general although they did not reflect the full advance in the Chicago futures during the week ending February 11. No. 3 Yellow corn was quoted at Chicago February 10 at 93-94 cents per bushel, Kansas City at 83½-86 cents and Omaha at 83½ cents.

"SUPER OATS" INFERIOR

A short time ago a man sold what he claimed to be super oats to Wisconsin dealers at prices ranging from \$5 to \$10 a bushel. Field tests have been conducted by the agronomists of the Wisconsin College of Agriculture which have shown that these oats were decidedly inferior. The seed yielded only 27 bushels to the acre when grown alongside the varieties which produced 70 bushels. Ninety per cent of the so-called super oats lodged in the field and was found to be unusually susceptible to rust.

As a result of this disclosure, the authorities at the college urge the farmers to consult their county agricultural agents or the extension specialists of the college before buying unknown varieties of seed.

RECEIPTS AND SHIPMENTS

Following are receipts and shipments of grain, etc., at the leading terminal markets in the United States for January:

BALTIMORE—Reported by Jas. B. Hessong, Secretary of the Chamber of Commerce.				
Receipts		Shipments		
1928	1927	1928	1927	
Wheat, bus.	1,474,189	1,370,931	2,350,067	1,382,225
Corn, bus.	115,376	131,565	34,286	16,429
Oats, bus.	115,539	137,550		
Barley, bus.	802,759	1,233,078	816,207	1,041,000
Rye, bus.	172,511	155,901	129,801	77,299
Malt, bus.	9,058	8,204		
Buckwht, bus.	1,177			
Millfeed, tons	761	853		
Straw, tons.	37	28		
Hay, tons.	900	559		
Flour, bbls.	88,953	89,071	30,752	25,479

CHICAGO—Reported by J. J. Fones, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	814,000	1,176,000	1,257,000
Corn, bus.	9,725,000	8,227,000	3,251,000
Oats, bus.	3,232,000	4,177,000	2,778,000
Barley, bus.	763,000	518,000	164,000
Rye, bus.	149,000	140,000	179,000
Timothy Seed, lbs.	1,170,000	1,588,000	1,053,000
Clover Seed, lbs.	1,557,000	1,695,000	1,535,000
Other Grass, Seed, lbs.	2,590,000	3,869,000	1,493,000
Flax Seed, bus.	142,000	213,000	2,000
Hay, tons.	9,706	15,029	963
Flour, bbls.	1,039,000	979,000	471,000

CINCINNATI—Reported by J. A. Hallam, Chief Inspector of the Board of Trade, Inc.:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	238,000	109,200	257,600
Shelled Corn, bus.	382,200	362,600	317,800
Oats, bus.	262,000	332,000	234,000
Barley, bus.	1,400	1,400	
Rye, bus.	1,400	5,600	
Grain Sorghums, bus.	1,400	5,600	
Ear Corn, bus.	1,000	8,000	
Feed, tons.	210	300	
Hay, tons.	6,732	3,685	

DULUTH—Reported by Chas. F. McDonald, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	3,231,013	2,341,402	576,790
Corn, bus.	3,689	1,180	1,204
Oats, bus.	40,339	23,954	26,000
Barley, bus.	146,350	57,209	140,001
Rye, bus.	718,466	393,888	27,613
Flax Seed, bus.	142,719	132,350	296,444
Flour, bbls.			56,675

PORT WILLIAM, ONT.—Reported by E. A. Ursell, Statistician of the Board of Grain Commissioners for Canada:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	21,094,926	14,029,019	2,007,787
Corn, bus.		3,021	11,329
Oats, bus.	1,226,133	1,064,383	1,270,241
Barley, bus.	1,740,446	2,145,991	1,563,014
Rye, bus.	712,926	490,233	13,655
Flax Seed, bus.	239,164	252,497	12,835

GALVESTON—Reported by H. A. Wickstrom, Secretary of the Cotton Exchange and Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.		168,000	2,415,582
Corn, bus.		519,915	
Barley, bus.		131,816	150,066
Rye, bus.		63,028	25,714
Milo, bus.		122,142	
Kaffir Corn, bus.		186,785	

INDIANAPOLIS—Reported by Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	309,000	96,000	136,500
Corn, bus.	1,870,000	1,743,000	1,216,000
Oats, bus.	570,000	836,000	558,000
Flour, bbls.	37,961	32,983	

KANSAS CITY—Reported by W. R. Scott, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	4,172,600	6,040,350	3,567,650
Corn, bus.	7,560,000	2,328,000	4,471,500
Oats, bus.	274,000	420,000	308,000
Barley, bus.	76,800	43,200	142,400
Rye, bus.	28,500	46,500	49,500
Bran and Shorts, bus.	4,900	4,940	18,080
Kaffir-Milo Corn, bus.	696,300	625,900	487,000
Hay, tons.	28,176	28,728	14,688
Flour, bbls.	56,550	73,125	715,000

LOS ANGELES—Reported by M. S. Thiebaud, Secretary of the Grain Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, Cars.	257	219	
Corn, Cars.	400	239	
Oats, Cars.	36	35	
Barley, Cars.	99	310	
Rye, Cars.		1	
Seed, Cars.	34	6	
Kaffir Corn, Cars.	85	76	
Bran, Cars.	85	96	
Flour, Cars.	157	134	

MILWAUKEE—Reported by H. A. Plumb, Secretary of the Chamber of Commerce:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	113,760	91,000	43,750
Corn, bus.	1,764,160	1,653,160	486,750
Oats, bus.	458,400	1,048,320	402,100
Barley, bus.	1,102,640	949,520	193,690
Rye, bus.	64,800	144,330	47,220
Timothy Seed, lbs.	39,200	101,440	126,865
Clover Seed, lbs.	325,384	309,475	103,712
Flax Seed, bus.	31,880	107,250	
Hay, tons.	578	840	588
Flour, bbls.	115,500	95,900	7,350

MINNEAPOLIS—Reported by G. W. Maschke, Statistician of the Chamber of Commerce:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	9,104,410	5,060,260	3,585,550
Corn, bus.	1,173,380	1,566,100	631,550
Oats, bus.	1,354,300	931,870	1,498,590
Barley, bus.	2,143,830	842,350	1,771,150
Rye, bus.	343,730	304,230	65,340
Flax Seed, bus.	716,130	415,000	263,980
Hay, tons.	2,382	5,850	1,371
Flour, bbls.	28,579	22,896	1,143,156

MONTREAL—Reported by J. Stanley Cook, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	1,000,429	891,912	18,954
Corn, bus.	29,950	37,470	2,078
Oats, bus.	104,488	423,518	18,011
Barley, bus.	140,417	115,739	212
Rye, bus.	1,500	10,574	
Flax Seed, bus.	50,490	58,202	
Hay, bales.	44,128	39,324	
Flour, bbls.	129,560	141,275	79,014

NEW ORLEANS—Reported by S. P. Fears, Chief Inspector of the Board of Trade, Ltd.

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	208	158	506,216
Corn, bus.	202	311	186,046
Oats, bus.	66	79	53,060
Barley, bus.		1	135,857
Rye, bus.	9	33	
Gr. Sorghums, bus.	4	5	

NEW YORK CITY—Reported by H. Heinzer, Statistician of the Produce Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	4,625,600	6,413,400	5,504,000
Corn, bus.	99,000	130,500	17,000
Oats, bus.	798,000	994,000	102,000
Barley, bus.	1,513,000	3,032,800	305,000
Rye, bus.	424,500	811,500	1,338,000
Clover Seed, lbs.		1,050	6,207

OMAHA—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	1,351,400	1,411,200	1,082,200
Corn, bus.	4,366,600	2,611,000	4,113,200
Oats, bus.	670,000	496,000	728,000
Barley, bus.	110,400	33,600	176,000
Rye, bus.	89,600	92,400	98,000

PEORIA—Reported by John R. Lofgren, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	32,800	195,100	70,800
Corn, bus.	2,682,450	2,425,700	963,300
Oats, bus.	703,800	727,400	610,200
Barley, bus.	412,000	109,800	313,200
Rye, bus.	2,400		8,400
Mill Feed, tons	36,150	32,160	46,311
Hay, tons	410	2,600	100
Flour, bbls.	319,350	313,750	308,800

PHILADELPHIA—Reported by A. B. Clemmer, Secretary of the Commercial Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	503,406	5,234,680	830,722
Corn, bus.	184,178	32,940	42,857
Oats, bus.	108,313	151,996	
Barley, bus.		395,256	2,802
Rye, bus.	119,302	45,392	25,730
Flour, bbls.	172,309	195,408	13,772

PORTLAND, ORE.—Reported by F. W. Clark, Mgr. of the Merchants' Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	3,063,850	2,273,600	2,474,179
Corn, bus.	162,000	162,000	187
Oats, bus.	97,500	12,000	9,270
Barley, bus.	20,800	49,600	130
Rye, bus.	7,500	4,500	

ST. LOUIS—Reported by Secretary of the Merchants' Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus.	2,196,800	1,801,800	1,598,800
Corn, bus.	4,246,200	1,905,400	2,132,400
Oats, bus.	1,856,000	1,928,000	1,502,000
Barley, bus.	185,600	108,800	35,200
Rye, bus.	20,800	137,800	9,100
Kaffir Corn, bus.	128,400	111,600	82,800
Hay, tons	7,056	9,576	1,680
Flour, bbls.	535,250	527,870	394,170

SAN FRANCISCO—Reported by J. J. Sullivan, Chief Inspector of the Chamber of Commerce:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, tons.	11,723	4,175	
Corn, tons.	2,760	2,480	
Oats, tons.	830	952	
Barley, tons.	7,793	23,786	
Bran, tons.	293	457	
Beans, sacks.	84,641	56,816	
Foreign Beans, sacks	44,984	21,054	
Hay, tons.	2,100	2,581	

SUPERIOR—Reported by J. W. Conner, Chairman of the Wisconsin Grain and Warehouse Commission:

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus.	1,914,831	1,149,094	794,959	692,138
Corn, bus....	9,070	3,777		
Oats, bus....	39,241	17,284	72,156	86,845
Barley, bus....	138,443	38,790	157,525	22,333
Rye, bus....	384,357	199,029	7,964	
Flax, bus....	329,167	94,360	11,171	65,439
Bonded Wheat, bus.	24,090	40,812		43,820
Bonded Rye, bus.	1,550			
Bonded Barley, bus.	4,955	25,829		11,086
Bonded Flax....				

HAY, STRAW AND FEED

TEXAS FEED DEALER HANDLES
TWO NATIONAL BRANDS AND
ALSO GRINDS HIS OWN

By H. W. JEFFRIES

It is a self-evident truth that the old team mates, Supply and Demand, are reciprocal. One may outstrip the other for a long time, due to inaccurate vision, but when the final race has been run it will be found that they have run neck and neck most of the way. The successful business man is the one who is quick to sense the trend of demand and take prompt steps to supply it. About six years ago Archie Carruthers started a feed store in Fort Worth, Texas. He had two live lines of feeds to choose from and compromised by taking the agency for both, so his buildings prominently display both the nationally known "Checkerboard" and the increasingly popular "Superior" signboards.

After two years of dealing in these prepared

the prepared feeds and ground feeds. His plant is one story high, of frame construction, and covered with sheet iron. A Reo Motor Truck is used for deliveries and the cost records on this show that deliveries can be handled on a basis of 10 cents per hundredweight. If his customers desire to save this delivery charge they may do so by calling at the store.

"How do you manage to handle two highly competitive lines?" I asked.

"That is easy, I just say, here they are, the two



ARCHIE CARRUTHERS ON RIGHT, BEHIND HIS DOG

best brands on the market in this territory. Take your choice!" replied Mr. Carruthers.

Prior to entering the feed business Mr. Carruthers was an elevator man, so he comes honestly by his knowledge and liking for grains and their by-products. In the background of one of the views of his store can be seen the tanks of the Rail Grain Company, where he was superintendent for many years.

MIXED FEED EXPORTS GAIN

Prepared feeds valued at \$1,492,000 were exported from the United States in 1927. The year's volume was 131.2 per cent greater than in 1926. The average price per ton figures out at approximately \$26.50, for the 56,171 short tons exported. Total feedstuffs exported during the year amounted to 130,359 short tons, with the gross value totalling \$32,917,000, compared to \$28,214,000 in 1926.

Cotton cake exports gained 15.7 per cent on the year; linseed cake, 12 per cent; other oil cake feeds, 54.7 per cent.

SAYS RAILROADS NOT OBLIGED TO
UNLOAD FEED ENROUTE

The Interstate Commerce Commission has reversed a former decision on the case of the Ohio Farm Bureau Federation *versus* the Norfolk & Western Railroad, and reports that the carrier's failure to stop cars in transit to unload feed, fertilizer, tankage, and twine, was not unreasonable. The complaint is dismissed although the Commission's chairman and three members dissented.

Objection to the stoppage privilege was stated by the Norfolk & Western to be that it would defeat the less than carlot rates, that it would severely cut rail revenue, that it would react to the disadvantage of shippers who could not sell in carload quantities and of the jobbers who received shipments in carload quantities for distribution in smaller quantities, and that the switching charge of \$6.30 per car would be inadequate.

DRY MILK MARKET FIRM

Dry milk market ended January in a steady position, according to the reports of the Bureau of Agricultural Economics. Demand so far this month is moderate, but prices do not yield. Re-

serve supplies are considerably below those of the same season last year, the only important increase being in dried buttermilk. Much of this increase is due to the growth of the industry occasioned by the rapidly mounting demand from feeders.

Dry skim milk supplies are approximately half those of 1927, despite the fact that production in December was approximately 65 per cent larger than in December, 1926. Other classes than dry skim milk showed only moderate changes from a year earlier. Foreign trade in dry milk was slightly greater last year, but the excess of import over exports was 3,502,410 pounds, as compared with an excess of 2,564,439 pounds imported in 1926.

MILD WINTER CHECKS NEW YORK
HAY TRADE

By C. K. TRAFTON

The same unsettled conditions noted in our previous review of the New York hay situation. For a short time this slackness in business was traceable largely to the few days of really wintry weather, accompanied by a fairly heavy fall of snow, as a result of which horse-trucking was virtually impossible in the city. Strange as it may seem, just the opposite condition, was the principal reason for the generally slow demand noted most of the time. Many experienced traders are convinced that the failure of demand to improve was traceable almost wholly to the unusually mild weather prevailing most of the time, with the well-known effect of cutting down consumption by livestock.

During the early part of the period, or almost up to the end of January, the arrivals were generally light and at one time accumulations of supplies appeared to be fairly well cleaned up at practically all terminals in the Metropolitan District. As usual under such conditions, the indications of shrinking supplies and the outlook for continued light receipts created some anxiety among distributors and consumers. As a consequence business became somewhat more animated for a time, but this had little effect upon prices excepting in the case of low grade hay which at that time made up a relatively small percentage of the arrivals. Therefore the price-gap between choice and inferior grades was narrowed temporarily.

At this juncture recent history was again repeated as the depletion of stocks prompted commission men to urge upon interior shippers the desirability of sending their hay in more freely and their quotations of "top" prices received for especially choice lots had the desired effect of loosening up much more hay at country depots. The resultant heavier run was felt especially at Manhattan yards, whereas in Brooklyn the increase was not so noticeable. Nevertheless, the whole district was affected by the more liberal receipts, specially as buyers again assumed an independent attitude when it began to look as if their fears of a possible shortage of hay were unfounded. As a consequence they confined themselves almost entirely to the covering of the most urgent requirements and hence many receivers found it necessary to accept almost any price in order to move their goods. This was especially noticeable in the instance of the poorer grades, the latter again making up the larger part of the arrivals. The bulk of this poor stuff was over-ripe and in some cases was almost unsalable, some being sold in New York at as low as \$14, while in Brooklyn the phenomenal price of \$12 was accepted for one lot. Needless to say, this is a convincing demonstration of how foolish it is to ship such hay. No. 3 hay was also adversely affected and while some might have brought \$17, the real "top" of the market at this time is \$16, which compares with \$18@19 a month ago. As a result of this



FRONT VIEW OF CARRUTHER'S FEED STORE, FORT WORTH, TEXAS

feeds he decided to install some grinding equipment of his own, as he had noticed an increasing trend toward ground feeds. The motor truck had not as yet displaced the horse and mule and owners of these animals were strong for ground feeds. The various chops were very popular and relatively speaking, the mixed feed business was poor. Therefore, he decided to cash in on some of this profitable grinding business. In the four years he



REAR OF CARRUTHER'S STORE, SHOWING REO TRUCK

has been grinding he has used several makes of grinders. He liked the latest one so well that another has been recently installed, although it is not running yet, the feeder for it not having been received. Both of these grinders use 25 horsepower motors.

This also indicates a wholesome growth in this part of his business. "The day of the big single crop farmer is done," he says. "During the last few years the farmers have been diversifying. Most of my customers now are poultry and dairy men, while before they were straight farmers. Even sheep are being raised to run on the stubble. That is the best way to turn stubble into good fertilizer that I know of." With this increase in small farms has come a better demand for mixed feeds so that today his business is rather well divided between

surplus of trashy stuff the demand for choice selection showed up comparatively well. No. 2 is a shade easier with a "top" of \$20 for large bales and \$18@19 for small, but No. 1 still holds firmly at last month's "top" of \$22 for large bales and \$21 for small. This widening of the differences between grades is in line with predictions made by experienced and well-informed distributors months ago and it would not surprise them to see a still further widening because of the small proportion of good hay in the crop and the liberal supply of poor qualities.

FEED MILL ACQUIRES BIPLANE

A brand new American Eagle Biplane has just been added to the equipment of the Nutrena Feed Mills, Inc., Kansas City, according to an announcement made recently by Van Roy Miller, president. The plane, one of the latest models of air-craft construction, will be used in transporting executives, sales managers and salesmen in territories where train service or road conditions prevent quick access by rail or automobile.

Although aeroplanes have been used considerably by other manufacturers, it remained for the Nutrena Feed Mills to pioneer the way among feed manufacturers, they being the first one to acquire an aeroplane for regular use. The plane is painted a bright orange, the standard Nutrena color, corresponding with the color on all Nutrena sacks, and will be used for advertising purposes as well as for transportation. A regularly licensed pilot who

with tankage and minerals (free choice) in a self feeder," reports C. M. Vestal in telling of the experiment. Hogs that got only corn self-fed, made a 100 pounds of gain for \$8.68.

Gains on the hogs getting the tankage with corn cost \$1.75 less for each 100 pounds than when tankage was not fed to balance the ration. In other words, each 100 pounds of tankage fed saved 11.5 bushels of corn. A ton of tankage saved 230 bushels of corn. At 70 cents a bushel for corn, each ton of tankage returned \$161; the cost was \$75 a ton.

TANKAGE FOR PIGS EFFECTS EVEN GREATER RESULTS

The difference between corn alone and corn with other feeds was even more striking for the weaned pigs. With 75 parts corn, 10 parts tankage, plus minerals, the gain on the pigs cost \$6.48 per 100 pounds. On corn alone it cost \$29.76, over four times as much as when the supplement was used with corn.

"Corn without any other feeds makes a poor ration for fattening hogs and it is especially bad for growing pigs," Professor Vestal warns. "It is not only a poor feed but an expensive one."

CREDIT BODY FOR FEED DEALERS

Feed dealers of the San Gabriel Valley in California have organized to protect themselves against the slow and the non-payer. They have formed the San Gabriel Valley Feed Dealers Credit Association as a separate unit of the Alhambra Business Men's

season but was overbalanced by a sharp increase in the production reported by central and southern mills. Offerings were light at Philadelphia where bran was nominally 50 cents higher. The market was especially strong at Buffalo, largely because of reduced production there. Mills at that point were out of the market for February and resellers were offering very sparingly. The limited offerings at Cincinnati were closely absorbed. Prices were quotably unchanged at St. Louis but demand was slack. Bran and shorts advanced 50 cents at Chicago but flour middlings and red dog declined and buyers were becoming cautious about purchases of bran and shorts. Bran and middlings advanced about a dollar a ton at Minneapolis where inquiries were chiefly for nearby shipment although some trading was being done for shipment as far in the future as April. Retail trade in the Northwest was light at current prices but buying by mixed feed manufacturers and others is absorbing the offerings closely. Red dog and flour middlings, however, were relatively weak at Minneapolis. Prices at Omaha were quotably higher on moderate offerings. Bran was in demand at Kansas City with jobbers and feed mixers persistent buyers of nearby offerings although inquiry was less active for shipment after February. Jobbers were complaining that February feed contracts were being filled rather slowly. Shorts and the heavier feeds, however, were in less active demand and mills were anxious to dispose of their supplies. Demand in northern Texas continued to take the increased offerings of mills there but the output at Memphis was fully equal to buyer's needs. Feed prices at Atlanta ruled fractionally higher.

Linseed meal continued its advance with offerings for nearby shipment light at most points. The output at Buffalo was restricted by a slow demand for linseed oil. Crushers there were not quoting for February shipment and resellers were asking premiums for shipment during this month. Stocks at Chicago were light and crushers were not pressing sales. Crushers at Minneapolis were not offering for shipment within less than 30 days but resellers had a little meal to offer for nearby shipment. Demand from nearby retailers continues good.

Output of linseed meal for the three months October-December, 1927, set a new record for these months, based upon record crushings of flax seed during that period. Stocks of linseed oil on January 1, however, were the largest on record for that time and these large stocks may be restricting crushings of flax seed at present.

Cottonseed meal was irregular with lowered quotations at some markets although prices at Memphis and Atlanta advanced 50 cents. Some of the weakness was ascribed in trade circles to offerings by resellers since crushers stocks seemed to be firmly held. Export demand has been restricted somewhat, according to recent reports from Denmark, by the competition of liberal offerings of soy bean cake from Manchuria where the soy bean crop may be a record one.

Gluten feed was again hard to buy and quotations were irregular with resellers securing premiums for the limited offerings of this feed available for nearby shipment. Demand for nearby shipment continued urgent at Buffalo where only scattered cars were available and most manufacturers seemed to have been sold their output for about two months ahead. Quotations advanced 60 cents at Cincinnati. A local manufacturer was still quoting at \$38.70 at Chicago for March shipment but resellers there were able to secure some premium for stocks on hand.

Hominy feed was independently easier with offerings more liberal while buyers were disposed to take for immediate needs only. The market was slightly easier at Philadelphia although prices there were quotably unchanged. Offerings of white hominy at Buffalo were extremely liberal by mills and resellers while demand was very dull. Liberal offerings of yellow hominy feed at that point met with a fair inquiry but mills were not pressing sales of that variety. This feed was very draggy at Chicago at lower prices. Demand was less active at Omaha and mills were not sold so far ahead as 30



NUTRENA FEED MILL'S NEW BIPLANE

is also a full-fledged Nutrena salesman, will have charge of the plane, and several reserve pilots among Nutrena salesmen will always be in readiness in cases of emergency.

"We are not using aeroplane transportation as a stunt of any kind," says Van Roy Miller, "and it has only been added to our equipment, after a vast amount of study and figuring, strictly from an economical basis. We figure that quick transportation at times is necessary, and while the plane is not used in regular sales work, it will be used when time is an element."

The plane has already been tested, and has flown over northern Missouri and eastern Kansas, and has borne out the predictions made by the company in every way.

TON OF TANKAGE REPLACES 230 BUSHELS OF CORN

A feature of the last farm week program at Purdue University, Lafayette, Ind., was the display of four lots of hogs that had been fed corn alone, and corn with other feeds for the purpose of comparison. Two of the lots were fall pigs that averaged 32 pounds when they were put on feed two months before the showing. The other two lots averaged 114 pounds when put on feed.

"The fattening hogs made 100 pounds of gain at a cost of \$6.93 when fed on corn supplemented

Association, Alhambra, Calif. Almost all the feed and poultry supply dealers in the valley are members of the association. The group will have as one of its policies the tightening of credit lines that will be fully enforced by all members, and thousands of credit ratings will be added to the files.

FEED MARKETS GENERALLY FIRM

Offerings of most feeds east of the Rockies were hardly equal to current need during the week ending February 8 and prices were again slightly higher on the whole, states the weekly feed market review of the United States Bureau of Agricultural Economics. Firmness in corn and oats prices favored advancing quotations in feedstuffs although weather warmer than normal except in the extreme Northeast permitted economies in feeding in some sections. Livestock were able to range freely in the northern great plains and precipitation favored pastures in Texas. Feed markets on the Pacific Coast ruled steady although demand was only moderately active.

Wheat feeds ruled steady to slightly higher with bran and middlings again firmer than the heavier feeds which held about steady. The output last week increased according to flour production at centers and was again larger than for the same week last year and two years ago. Production at Buffalo declined to the lowest figure at that point for the

days ago but offerings there were being absorbed and no surplus had accumulated.

Alfalfa meal showed an irregular advance. Number 1 meal was sharply higher at Chicago where stocks were low although choice meal and Number 2 were quotably unchanged. This feed held steady at Omaha and prices were steady at Kansas City where a broad demand from mixers in the south and southeast was absorbing all offerings of green meal.

INDIANA HAY MEN ELECT

The Northeastern Indiana Hay Dealers Association at its monthly meeting in January elected the following officers: Lewis Reed of Auburn, Ind., president; C. G. Egly, Fort Wayne, re-elected secretary.

KANSAS CITY HAY MEN ELECT

At the recent annual meeting of the Kansas City Hay Dealers Association, Kansas City, Mo., the following officers were elected: D. B. Tilson of the Dyer Hay & Grain Company was re-elected president; C. Stuart Brubaker, vice-president. The new Board of Directors is composed of N. C. Campbell, J. M. Hall and J. D. Cole; Arbitration Committee, J. C. Glover, T. R. Hogan and J. A. Brubaker.

ORDER ALFALFA BY GRADE

The use of the United States hay standards by dairymen is recommended by E. C. Parker of the hay, feed and seed division of the United States Department of Agriculture and would, he says, greatly simplify the farmers' ordering of Alfalfa suitable to their needs. Complaints from dairymen that their orders are not properly filled by shippers indicate that in most cases the dairymen are using indefinite descriptive terms in placing their orders.

Mr. Parker says that the U. S. grades of Alfalfa best suited to dairy feeding are: No. 1 extra leafy, No. 1 extra green, No. 1 Alfalfa, No. 2 extra leafy and No. 2 leafy. No. 1 extra leafy is soft stemmed, with clinging foliage; leaves constituting 50 per cent. No. 1 Extra Green, pronounced green hay which dairy experts say helps to produce the highly desirable yellow color in milk. High in vitamin content.

No. 1 Alfalfa—Forty per cent leaves and 60 per cent green. Free from discoloration from heavy dews, rains, excess sun bleach or sweating.

No. 2 Extra Leafy—Equal to No. 1 extra leafy except in color requirement which permits moderate discolorations from dews, showers or fogs.

No. 2 Leafy—as leafy and pure as No. 1 Alfalfa but of less green color because of discolorations permitted. Produced in greater quantity than the fancier grades and usually sold at lower prices.

FEEDS RISE FURTHER IN NEW YORK

By C. K. TRAFTON

With linseed oil meal taking the leadership away from cottonseed meal feed prices in this territory scored additional gains of \$1 to \$3.75 during the period under review. Corn goods, which had been conspicuous laggards on the advance of the preceding month furnished an even more striking exception by registering losses of \$1@\$.150. Distributors generally report that there has not been much buying, but it is the consensus of opinion that business is almost if not quite normal for this time of the year. Disappointment regarding the volume of business is especially marked, of course, in the matter of corn goods as it had been hoped that buyers who had been holding off would begin to show more interest at lower levels. Offerings have been somewhat freer as nearly all of the corn mills are now in the market, but there seems to be no urgent pressure to sell as millers in nearly all cases seem to have adopted the policy of putting out small lines and then stopping for a time. Nevertheless, the basis on white hominy is \$1.10 lower at \$42.50, but its premium over yellow is again wider as the latter is \$1.50 lower at \$41. Wheat feeds are scarce, especially in nearby positions, as one of the largest producers pulled out of three of the principal markets about the middle of January and is expected to remain out throughout February. Many others

are well sold up for a few months ahead and are offering only for future shipment. In some cases they have made sales for shipment up to the end of June. As a consequence the spot basis is firm with both standard middlings and spring bran quoted at \$40.75, or \$1.25 more than a month ago. Buyers in need of immediate supplies have shown some interest, but the price is too high to encourage much buying in anticipation of future requirements. Buying of linseed oil meal has stopped almost entirely on the advance of \$3.75, which has carried 33 per cent meal to \$55 and 34 per cent to \$56. This advance is traceable to the fact that additional mills have shut down owing to accumulation of excess supplies of oil. In cottonseed oil meal the advance of \$1 to \$1.75 was again led by the higher grades; 36 per cent rising to \$50; 41 per cent to \$53.50; and 43 per cent to \$56. While this further advance has served to keep local buying down to a minimum, advices from the South indicate that mixers have been heavy buyers because of the shortage of linseed meal. Domestic beet pulp has disappeared almost entirely from this territory. As noted in our previous review, prices had about reached the top limit of buyers' ideas and with better markets available in the interior, leading Michigan producers are no longer offering to agents here. Although some of the arrivals from the United Kingdom previously alluded to were said to be of rather poor quality, practically everything coming in was taken up and there is said to be further inquiry, though a great deal depends upon the price. A few cars of choice quality English pulp are on the way over, the price quoted being \$42 f.o.b. New York.

THE HAY AND PASTURE OUTLOOK

With an unusually large carryover in sight this year from the record 1927 crop of 123,512,000 tons, the supply of hay for 1928-1929 will be in excess of the average domestic requirements for the past five years should an average yield be secured in 1928 on an acreage equal to that of 1927. With such a crop, only a slight price advance over the low price levels of this season may be expected. The continued decline in the number of hay-consuming animals will further tend to restrict demand next season, and no material increase in demand is in sight for several years.

The hay acreage is over-expanded. About 1.04 acres of hay were harvested in 1927 per animal unit (one horse or one cow or seven sheep) of hay-eating animals on farms compared to 0.86 acres in 1920 and 0.88 acres in 1910. In addition hay yields have shown a slight upward tendency during this period, largely because of the substitution of tame hay acreage for low-yielding wild hay acreage. From 1910 to 1919 the acreage of hay roughly followed the trend in hay requirements. Since 1919, however, the number of hay-eating animals steadily declined while hay acreage continued to increase to its highest point in 1922. The 1927 acreage was only slightly below the record 1922 figure and was 10 per cent larger than in 1910, while the number of animal units of hay-eating animals on farms was approximately 5 per cent smaller than in 1910.

Another contributing cause for the present low farm price levels for hay has been the decrease in the number of horses in cities during the period 1910 to 1927 which has been much greater than the decrease for all hay-eating animals on farms. The city horse population decreased about 70 per cent from 1910 to 1925, according to a survey of nineteen cities. This decrease has continued since 1925. Receipts of hay at such markets as Boston and New York for the years 1910 to 1927, indicate plainly the effect of this decreased horse population in cities on the demand for hay in those markets. In 1910-1911 the total receipts in these two markets amounted to 501,280 tons; in 1920-1921 to 228,934 tons, and in 1926-1927 to 89,720 tons, or a decrease of 82 per cent from 1910-1911 to 1926-1927.

The outstanding regional change in hay acreage from 1910 to 1927 occurred in the Southern States, where the acreage increased 60 per cent. Hay acreage in the South Atlantic States increased from 2,800,000 acres in 1910 to 4,800,000 acres in 1927, and in the South Central States from 4,600,000

acres to 7,200,000 acres. In the Mountain and Pacific Coast States the acreage increased from 8,800,000 acres in 1910 to 11,300,000 acres in 1927, with little change in other geographic regions.

As a result of over expanded acreage in proportion to livestock requirements, the purchasing power of hay for 14 years has been below that of farm products in general. The large crop of 1927 forced the purchasing power of hay to 58 in November, 1927, compared with 91 for farm products in general, based on 1910-1924 relationships.

During the last 20 years there has been a decided shift in the demand from Timothy and other grass hays to legume hays. This shift was due to increasing use of legume hays for all kinds of livestock, especially dairy cattle, to increasing numbers of dairy cows, and to the decreasing numbers of livestock which use non-legume hays.

The proportion of legume hay acreage to total hay acreage has increased distinctly in recent years to meet the changing demand. The legume hay acreage increased from about one-fifth of the total hay acreage in 1910 to one-third in 1927, the Alfalfa acreage from 7 per cent to 15 per cent, while Timothy and wild hay acreage decreased from one-half of the total hay acreage to one-third.

The increased popularity of and demand for the legume hays is indicated by the gradual improved price position of Alfalfa and Clover hay compared with that of Timothy and Prairie hay, even though legume acreage has increased materially while that of Timothy and Prairie hay has declined. Furthermore, the price position of the top grades of Alfalfa hay which are in demand for dairy feeding is distinctly higher than that of the common grades of this hay or than that of Timothy and Prairie hays of any grade. Hays which have high protein content, such as U. S. No. 1 Alfalfa or U. S. No. 1 Clover, have shown a distinct tendency to rise in price as information became more widespread as to their nutritive value in animal rations, and such grades of hay are comparatively unaffected by the supply of and demand for common run hay. Increased quantities of high-grade Alfalfa and Clover would find a ready sale.

Recent changes in freight rates on hay, effective at least until August 15, 1928, place the East North Central States on lower through rates to the South than have heretofore prevailed in relation to the trunk line rates from New York State to the South. The changes favor the purchase of an increased proportion of the southern hay requirements from the East North Central States and a decreased proportion from New York State.

The national outlook for both farm and market hay suggests a need of a shift of the least profitable Timothy or grass hay acreage into pasture or legumes, especially in those sections which have been accustomed to dispose of surplus hay in city markets or the Southern States.

HAY MARKET EASIER

Hay markets were easier with liberal offerings at most important markets exceeding demand and stocks tending to accumulate, according to the weekly hay market review of the United States Bureau of Agricultural Economics. Country loadings fell off during the last few days of the week with rainy weather and bad roads. Shipping inquiry was fairly active but the movement was not of sufficient volume to keep stocks cleared away, particularly in the eastern sections.

Timothy prices for top grades declined at nearly all of the large markets while lower grades were moved with difficulty even at sharp discounts. The New York market was irregular and prices declined. \$1 under last week's close with slack demand. Quoted prices at Boston were unchanged but the market was unsteady and the light receipts were fully equal to trade needs. Conditions at Cincinnati were unimproved and considerable accumulations were reported although buying was somewhat more active toward the close of the week. The Chicago market declined during the week but was showing more firmness at the close due to lighter receipts. It was believed that prices recently were so low as

to prove to be unattractive to shippers of this hay.

Alfalfa prices were steadier than for other types of hay although movement was only moderate. Kansas City reported a broad shipping demand with liberal movement of the better of the medium grades to the Southeast. Mill inquiry was fairly good both from commercial and mixed feed manufacturers. Omaha reported the bulk of shipments going to Iowa and to dairy interests. Some Nebraska Alfalfa was moving direct to consuming trade. Pacific Coast markets were dull with green feed restricting demand for hay from outside sources. Offerings were fully equal to trade needs.

Prairie stocks at terminal markets were decreasing but demand continued very dull. Local stockyards were moderate buyers with government contracts practically the only outlet for shipments. Considerable wet hay was among the receipts at Omaha.

HAY RECEIPTS DECREASING IN ST. LOUIS

In its letter of February 10, the Martin Grain Company of St. Louis, Mo., says:

While receipts are decreasing due to the bad country roads and the relatively low prices obtainable for hay, the demand is not showing any improvement. While the trade bought freely during the past week they are well filled up and are slow to take hold except as they secure orders. We see nothing in the immediate future to lead us to believe in higher prices. Good Timothy is selling fairly well but everything else is dull and low priced. There was some shipping demand the first part of the week on hay originating in Illinois but Missouri hay is not included in this movement as the roads are against the shipment of Missouri hay. Light Clover Mixed hay steady on No. 1 but dull otherwise.

Heavy Clover Mixed hay quiet, demand is slow.

Pure Clover hay in liberal supply and while steady on high No. 1 is dull on the lower grades.

Alfalfa situation unchanged. High grade hay suitable for dairy feed is scarce and will sell high but the medium and lower grades are dull and slow.

Prairie hay market very dull. The liberal movement and the low prices of Timothy hay has made it almost impossible to sell Prairie hay.

PROCESSED HAY ON TRIAL

One-hundred white-faced calves selected from ranges in New Mexico in November are now in feeding tests at the Ohio Experiment Station to determine the value of processing hay and corn stalks. This experiment in feeding was started in December and will continue to June.

Some of the questions to be answered by these Hereford calves are being asked by Ohio cattle feeders. They are: "Does it pay to grind or chop hay or corn stalks for beef cattle? Of what importance is steaming or pre-digesting these roughages?"

"Should the corn and oilmeal be fed separate from the hay and stover, or be mixed with them for best results? Will any of these rations prove more economical than the time-proved standard fattening ration of corn, oilmeal, hay, and silage, especially when the added labor, equipment, and power requirement for processing are taken into consideration?"

NEW FEED BRANDS

"CERTIFIED" stock and poultry feeds. The Blair Elevator Corporation, Atchison, Kan. Filed July 13, 1926. Serial No. 234,461. Published December 6, 1927.

"I. F. B. 20% PAIL FILLER DAIRY RATION" stock feeds. Indiana Farm Bureau Purchasing Department, Inc., Indianapolis, Ind., Filed August 30, 1927. Serial No. 254,136. Published January 10, 1928.

"JASCO" poultry, dairy and stock feed. J. A. Sturges & Co., Easthampton, Mass. Filed October 20, 1927. Serial No. 256,383. Published January 17, 1928.

"UNCLE DAN'S" chicken feed. City mills Com-

pany, Columbus, Ga. Filed November 29, 1927. Serial No. 258,163. Published January 17, 1928.

"PAIL FILLER" dairy feed. American Milling Company, Peoria, Ill. Filed August 26, 1927. Serial No. 253,972. Published January 24, 1928.

Trade-Marks Registered

236,107. Hog food and chicken food. Hansen Packing Company, Butte, Mont. Filed July 21, 1927. Serial No. 252,383. Published September 20, 1927. Registered December 6, 1927.

236,241. Horse and mule feeds. Molony & Carter Company, Charleston, S. C. Filed August 13, 1927. Serial No. 253,434. Published September 20, 1927. Registered December 6, 1927.

236,242. Horse and mule feeds and poultry feeds. Molony & Carter Company, Charleston, S. C. Filed August 13, 1927. Serial No. 253,433. Published September 20, 1927. Registered December 6, 1927.

236,243. Poultry feeds. Molony & Carter Com-

UNCLE DAN'S



I. F. B.
20%
PAIL FILLER
DAIRY
RATION



PAIL FILLER

pany, Charleston, S. C. Filed August 13, 1927. Serial No. 253,426. Published September 20, 1927. Registered December 6, 1927.

237,507. Chicken feed. Josey-Miller Company, Beaumont, Texas. Filed August 19, 1924. Serial No. 201,613. Published November 1, 1927. Registered December 6, 1927.

237,842. Horse feed and mule feed. Grain Belt Mills Company, South St. Joseph, Mo. Filed April 22, 1927. Serial No. 247,851. Published November 8, 1927. Registered January 17, 1928.

237,866. Stock and poultry feeds, viz., egg mash, starter and grower feed, pig meal, calf meal, hog fattener, poultry fattener, dog feeds and dairy feed. Feeders' Supply Company, Kansas City, Mo. Filed August 15, 1927. Serial No. 253,495. Published November 8, 1927. Registered January 17, 1928.

HUNGARY TO RECLAIM SOIL

Large areas of alkali soil are to be reclaimed by the Hungarian government for increased grain production. A survey was recently made of 425,000 acres of such land. Based on this survey it is planned to treat in 1928 about 14,000 acres of this land with lime. The government will treat land for landowners holding not more than 425 acres.

It is believed that soils so treated may be used for Winter wheat in the autumn of this year. An increase of yield of at least 10½ to 13 bushels per acre is expected in the first crop year, so that the treatment is expected to increase the production on the 14,000 acres by about 147,000 to 182,000 bushels.

TEST EASTERN WHEATS

How farmer customers of elevators in the eastern part of the United States may increase their yields of wheat is suggested in the published results of a six-year experiment conducted by the United States Department of Agriculture at Roslyn, Va. The data is available in Technical Bulletin No. 38-T, entitled "Rate and Date of Seeding and Seed-Bed Preparation for Winter Wheat."

Wheat was seeded at from two to eight pecks per acre and the six-peck rate returned the highest

net grain yield. Slightly greater increases in yield were obtained from sowing larger quantities of seed per acre when the seeding was early than when it was late.

OLD NEBRASKA FIRM ADDS NEW ELEVATOR

Out in Nebraska there has been no lack of proper support of activities beneficial to the grain trade. All the misguided legislation which gets instigated by self styled leaders nationally does not offset the progress fostered by such organization as the Nebraska Wheat Improvement Association. And it is interesting to note that at the meeting held January 26 last, of the Nebraska Millers Association, the millers saw fit to reiterate their support and endorsement of this wheat improvement work by adopting a formal resolution to that effect. Secretary F. P. Manchester of the Omaha Grain Exchange was present at the meeting and recommended an assessment of 10 cents per barrel on daily capacity of mills for the improvement work. He pointed out that when the organization came into being two years ago, an assessment of 20 cents per barrel on daily capacity was paid by millers, and he added that a great reduction had been effected in smut in Nebraska wheat since the beginning of the work of the wheat improvement association.

Nebraska supports many elevators at country stations, all of which contribute in their individual ways to the prosperity of the commonwealth, and they indirectly benefit by this work. One of the



ELEVATOR OF THE W. T. BARSTOW GRAIN COMPANY, CODY, NEB.

newer and progressive country elevators is that of the W. T. Barstow Grain Company, at Cody, Neb. It is situated on the right of way of the Chicago & North Western Railway, is of studded construction, and has a storage capacity of 17,000 bushels of grain. The house measures 24 by 26 by 34 feet, and has a warehouse and coal shed adjoining, 24 by 40 by 10 feet. The storage is divided into nine bins, three of which are on each side, with three bins over the workroom. The elevator, warehouse and coal sheds all have galvanized iron covering. The headquarters of the company owning this house, which also operates other elevators, is in Lincoln, Neb.

The receiving capacity of the elevator is 100 loads daily, and the shipping capacity is seven cars daily. Six-hundred bushels per hour may be cleaned with the available equipment. This includes a Barnard & Leas Manufacturing Company Cleaner.

Electric power is used and the lighting system is also electric. The prime mover in the plant is a 7½ horsepower motor, which is equipped with a belt drive 30 feet in length. Two scales take care of the weighing, one of which is a wagon scale of the Fairbanks type and the other of which is an automatic scale.

The principal grains handled by W. T. Barstow Company's Cody, Neb., elevator are wheat, rye, oats, corn, flax and spelt. In addition to these commodities, the house does a sideline business in feeds and coal. The house has just recently been opened for business, so it is impossible to say what the average number of bushels handled per year will be, nor is it possible as yet to say which of the sidelines will prove most advantageous from a profit standpoint.

The superintendent is Joseph Whyte.

AN OLD MARKET TO BE REVIVED

By A. W. WILLIAMS

While the Government agencies are holding back on issuing permits to allow production of medicinal whisky, the distillers are getting their houses in order to be able to operate when conditions are favorable. The grain cooperage and box interests have read with considerable interest statements regarding the formation of the American Medicinal Spirits Corporation, a \$15,000,000 company, which will effect a merger of distilling interests, including New York, Maryland, Ohio, Kentucky and probably Pennsylvania.

It was announced that the properties of the Kentucky Distilleries & Warehouse Company, (formerly known as the trust), representing the largest combination of distilling properties in the state, would be brought into the organization, along with the R. E. Wathen & Co., properties of Louisville; F. S. Ashbrook Distilling Company, properties of Cincinnati, and others. Six of the largest concentration warehouses in the world will be included in the organization properties.

It was reported that the principal headquarters of the new company would be in New York, but that general headquarters of the organization would be located in Louisville. R. E. Wathen, of R. E. Wathen & Co., Louisville, will be president; Lester E. Jacobs, of the Ashbrook Company, Cincinnati, will be executive committeeman; and also on the Board of Directors, along with Leo Gergross, Lester E. Jacobi, O. H. Wathen, Thomas M. Brown, F. A. Rogers, Sidney Klein, Albert E. Heller and D. C. Weiskopf. Seton Porter will be chairman of the Board; Emil Schwarzhaupt, vice-president; M. M. Backman, secretary.

In the formation of this large organization, the distilleries will have a body with capacity, storage and other facilities sufficient to deal with the Government, in accepting contracts for rye or bourbon production.

Just when the Federal department will permit production is questionable. Under date of November 21, it was reported from Washington that the prohibition bureau had decided it does not need additional legislation covering medicinal liquor making, Commissioner Doran stating that the department did not see any need for such legislation now, as withdrawals of liquor from warehouses had declined, and at present rate of demand, there was sufficient whisky on hand to supply legitimate purposes for five years.

Under the administration of Lincoln C. Andrews, formerly in charge of prohibition enforcement, Congress was urged to pass a law permitting the Government to purchase all stored liquor and to manufacture additional spirits as demand required.

When this measure was being considered, Commissioner Doran points out, withdrawals were about 2,000,000 gallons annually, but over the past year have dropped to 1,500,000 gallons annually, which he estimates will be about the normal demand. He contended that with between 12,000,000 and 15,000,000 gallons in storage, he could see no need for an immediate addition to supplies. He contended that falling off of withdrawals was due to a tightening up of regulations affecting druggists' dispensation and surrender of permits by many physicians.

What Mr. Doran did not point out was the fact that it takes from four to eight years properly to age whisky, for production of good quality stock to be used for medicinal purposes. If consumption should average 2,000,000 gallons for five years, that would be 10,000,000 gallons, out of what he estimates to be from 12,000,000 to 15,000,000 gallons, and which may be less. If no medicinal whisky were made for five years, there would be only 2,000,000 to 5,000,000 gallons available over the long period in which new whisky would have to be aged. Even if consumption is but 1,500,000 gallons, that would be 7,500,000 gallons in five years, leaving only a three to five-year supply on hand during the period required for aging.

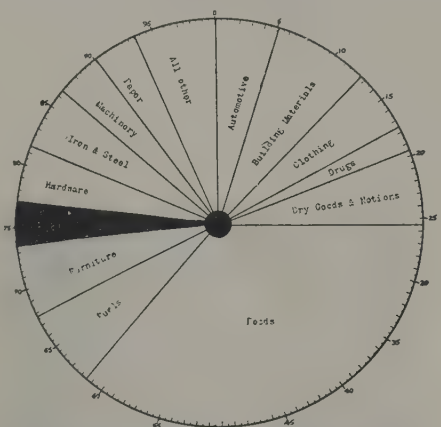
If whisky is to be made for medicinal use, it certainly should be made long enough in advance to enable nature and charred barrels to remove the

fire and rawness of new liquor. At any rate, it looks like the distilling interests are getting together and getting their house in order. It should be an entering wedge in eventually getting some production started.

TURNOVER RATE FOR HAY, GRAIN AND FEED TOPS LIST

In the matter of turnover, the 69 hay, grain and feed establishments in Chicago, lead all other wholesale merchandising groups. United States Bureau of Census figures for 1926, reassembled by the Chicago Association of Commerce to make a distribution study of the Chicago market, show that the hay, grain and feed wholesalers in Chicago have an inventory of \$4,332,700 and annual sales amounting to \$174,015,100. The turnover figure is 40.1, and the sales amount of 3.6 per cent of the total wholesaling of all products in Chicago for the year. In volume of sales, the hay, grain and feed group stands tenth in the list of 22 wholesale groups.

Approximately 80 per cent of the \$3,809,745,900 annual wholesale trade in Chicago is done by 18



GROUP DIVISIONS OF CHICAGO TRADE
SHADED SECTOR REPRESENTS HAY, GRAIN, FEED
WHOLESALE

commodity groups. The group of hay, grain and feed establishments stands tenth in this list. Live-stock wholesaling runs past the half-billion dollar mark and heads the list.

CINCINNATI RATE VICTORY

Permanent relief to the Cincinnati hay and grain trade from competition in sales to southern points which in the past two years, cut hay movement from an average of 9,000 cars annually to less than \$4,500 cars is promised as the result of a decision of the Interstate Commerce Commission.

The change became effective last month, whereby hay and straw in carlots moving into southern territory will be placed on a tenth class rating. This condition follows a series of emergency rates on hay and straw which were obtained by the Cincinnati Board of Trade through an appeal to Commissioner Joseph B. Eastman of the Interstate Commerce Commission.

LATVIA AIDS CO-OPS

Two laws have recently been passed in Latvia for the purpose of regulating the price of grain, according to a report from C. J. Mayer, Commercial Attache at Riga. These laws have the following provisions: Short term loans to co-operative societies will be granted by the government, to be used for the purchase of grain direct from the farmers at harvest time; and long term credit to co-operative societies will be similarly provided, to be used for the construction of grain elevators.

Through this action the government hopes to alter the present unsatisfactory position of the farmer who is now forced to sell grain at cheap prices to private interests immediately after the harvest, and to repurchase the same grain at much higher prices in the spring.

The funds for the purchase of grain will be loaned for a period of seven months at 6 per cent

interest and 15 per cent of the loan must be repaid by February 28, 1928, and the balance by March 31, 1928. The loans are to be covered by security in the form of bonds or letters of credit. The capital must be turned over at least four times in the seven months, and the profit of the co-operative societies is limited to 5 per cent net.

Loans for the construction and renovation of elevators are to be granted for a period of not more than three years at 1 per cent per annum during the first two years, and 4 per cent for the last year. The amount advanced must not exceed 75 per cent of the value of the properties to be built or improved.

GRAIN RATE VETERANS MEET FOR ANNUAL BANQUET

Frank Townsend, who has had a word or two to say in regard to the northwestern grain rate situation before the Interstate Commerce Commission hearing in Chicago, held under the Hoch-Smith resolution, invited about 50 men who have been participating in this case, to dine at the Union League Club, Chicago, February 2. The result was "the first annual dinner of the veterans of 17,000-7." The number, which has become famous in traffic circles, is the Commission's docket title for the grain rate inquiry.

The evening was spent in song and impromptu speeches, and there were numerous references to the ponderousness and length of the Hoch-Smith inquisition. Plans were made for the next annual dinner, the understanding being that if, by any chance, the Commission should render a decision this year, the plans would be cancelled.

GRAIN TRADER GIVES CUP TO BOOST CLEAN WHEAT CROP

World brotherhood is dawning in the capital city of the Quaker State. A Harrisburg grain trader has given a community service cup (his own idea) to a miller. George Weaver, of the Millersburg (Pa.) Milling Company was awarded the trophy by J. W. Baker, grain commission merchant of Harrisburg, for treating the largest number of bushels of seed wheat for smut, of anyone in his community.

The miller treated 8,300 bushels of seed wheat with copper carbonate dust in his commercial machine. This was 90 per cent of the wheat sown in the mill's trading area, and a major part of the 54.2 per cent of all wheat treated in Dauphin County last fall. The treated wheat increased the yield by two bushels per acre.

The award is to be passed on annually to the individual treating the most wheat and will become the permanent property of anyone winning it three times.

BULK HANDLING GAINS FRIENDS IN WEST

The attitude toward bulk handling of grain in San Luis Obispo County, California, has changed completely during the current season, and as this particular county is typical of a large area along the West Coast, Government promoters of the bulk handling idea feel greatly encouraged.

The demonstration of the amount of time saved, the possibility of using cheaper labor in handling of trucks, the economy in loss of grain through torn sacks, sacks lost in the field, etc., are facts which the grain men of San Luis Obispo County are interested in as a means of producing grain more economically. These are the factors which have helped change the feeling of skepticism into acceptance.

It was the almost unanimously expressed opinion of a recent bulk grain conference in this county that there would be no question as to the popularity of the bulking system provided that elevator storage space and loading facilities soon are supplied at terminal points.

A PETITION in bankruptcy has been filed by the Arcadia Elevator Company of Arcadia, Ohio.

ASSOCIATIONS

INDIANA DEALERS HOLD ANNUAL MEETING

By HOWARD M. RUDEAUX

The twenty-seventh annual convention of the Indiana Grain Dealers Association was held on Thursday and Friday, January 12 and 13, in the assembly room of the Indianapolis Board of Trade Building, Indianapolis, Ind. President Walter Moore called the meeting to order at 1:30 p. m., after which the Rev. William F. Rothenberger of the Third Christian Church pronounced the invocation.

Professor G. I. Christie of Purdue University was the first speaker on the program. His address on "The European Corn Borer" was short but effective. Grain dealers should be interested, said Mr. Christie, and while the corn borer has been discussed over and over again, he felt that the university should be represented at the meeting. He outlined the program for the coming year. One of the strange things last season was the fact that few farmers knew how to turn the corn stalks under, which is very essential, and one of the simplest propositions turned out to be one of the biggest problems. The campaign, said Professor Christie, was not a failure, but with the Federal Government refusing to pay farmers for their work in the clean-up campaign this year, the outcome is doubtful. Readjustment of farm practices must come if the borer is permitted to spread, as it thrives best in corn. Enough equipment is now on hand to start the work if Federal aid is to be had, and it is the intention of the state entomologist to go ahead providing assistance is assured. There is a way to destroy or control the corn borer, said Professor Christie, and it is not only affecting the farmer financially but it is lowering his morale. In closing, he said that the situation was not a local one, but a national problem and the Government should give aid and the job be done in the interests of agriculture.

Issac E. Woodard of Indianapolis addressed the meeting, on behalf of the Board of Trade and the grain dealers of Indianapolis. He spoke, in part as follows:

Indianapolis is the greatest inland grain market in the United States, depending entirely upon the railroads for its receipts and shipments. It is served by 19 railroads, namely, seven branches of the Big Four, six branches of the Pennsylvania, two of the Monon, two of the C. I. & W., one of the Nickel Plate, and one branch of the Illinois Central.

The Indianapolis Board of Trade, a business and civic organization, fathers and houses the grain business. The Board of Trade has a grain trading exchange, where buyers and sellers meet, a well equipped laboratory where the grading is done and a trained force of samplers and inspectors to see that both shippers and receivers get an absolutely square deal. The Board of Trade neither buys nor sells grain, but provides a market place and enforces what are probably the most rigid rules known in the realm of commerce.

The following table shows the totals of wheat, corn and oats received during 1927, a substantial increase over 1926 is shown.

	1927	1926
	Bushels	Bushels
Wheat	5,235,000	5,045,000
Corn	13,556,000	16,738,000
Oats	3,404,000	8,558,000

A response was given on behalf of the association by P. E. Goodrich, of Winchester, Ind.

MR. GOODRICH'S ADDRESS

It is with pleasure that I attempt to respond to the hearty address of welcome to our capital city. Indianapolis is a great city and we are glad to always hold our annual conventions here. We have at times wandered away to some lake or other beauty spot at which to hold our summer meetings but always return to Indianapolis for our annual meetings.

Our association was organized in this city just 26 years ago this week. Previous to that time a number of district associations in different parts of our state had been organized and from these came the call for a meeting to organize a state association. This meeting was held in the old Board of Trade building on January 8, 1902. An organization was perfected, a constitution and by-laws adopted and officers elected. Hon. Ebon H. Wolcott was chosen president and the first Board of Directors included Charles B. Riley, Rushville; James W. Sale, Bluffton; J. K. Stack, Muncie; J. C. Gordon, Argos, and Owen Thompson. Soon after the organization was completed trade rules were promulgated, a thing very necessary to secure the rights of all and to clarify trades between members and non-members.

Twenty-six years ago there was little or no uniformity in grades or practices by the large handlers of grain, and country grain dealers were largely speculators in grain rather than grain merchants. Our state organization sponsored and pushed the creation of the State Railroad Commission, which was originally a mediator between the shipping interests of the state and the railroads. This commission was later changed to our present Utility Commission and by a decision of the Interstate Commerce Commission, the power to regulate railroads in any important matter was taken away from them but the good understanding resulting from the activities of the old state commission is still felt within our state.

Our present commission has ever been willing to as-

sist our shippers to the utmost of their abilities within the limited power as left them. Of the most helpful activities of our association has been the Arbitration Committee, which has settled disputes between shippers and receivers whether members or non-members. This has been a valuable service and while less than 50 cases have been heard and findings delivered, yet our most efficient secretary, Charles B. Riley, has settled more differences through his office without burdening the Arbitration Committees.

Since the organization of the Indiana Grain Dealers Association there has been a change in the equipment and personnel of the trade. Then, if an elevator was equipped with a small dump, a 50-bushel hopper scale, a corn sheller and a revolving corn cleaner, it was a splendidly equipped house. Now the grinding equipment in the elevators built within the past three years, will cost more than the entire elevator of then. Indeed, I know of a grinding plant built as an addition to an elevator in eastern Indiana containing a corn grader, a mixer, motor driven attrition mill with six small bins that cost more to build than the two elevators that stood on the same ground 20 years ago would sell for.

Today a grain dealer in Indiana, if he is successful must not only buy grain and seeds but must also sell coal, salt, all kinds of feed, perhaps fence, farm gates and if he is in a dairy and poultry section, must compound at least a part of his dairy, hog and poultry feeds. He must know where to buy his supplies and must be able to market them at the best possible price. Two things work to the destruction of the country grain merchants; one speculation and the other, in not keeping abreast of the times.

There is one outstanding feature of our association that we may well be proud of and that is the fact—at no time have we ever attempted to stifle competition or have we attempted to fix prices. While we have always been interested in a living profit on the business that our members do, our meetings have al-



WALTER MOORE

ways been open to the public and there have been no closed sessions. And, never, to my knowledge, has the question of fixing prices been discussed. We have at all times attempted to assist the membership as a whole and while our organization has never had all the grain dealers of the state on its membership roll yet we have done things that have been a help to all. It is obvious that those who have attended our meetings and contributed to the support of the organization have received the most benefits and justly so.

Our association being affiliated with the Grain Dealers National Association brings us in close contact with the best dealers throughout the nation. And gives our members the privilege of using the Arbitration Committees of that organization, thus protecting us, no difference in what remote part of the country we buy nor where we sell. The decisions of the Arbitration Committees of our organization and of the National Grain Dealers Association have been so just that no court has ever reversed them. But the reverse is true, in that the Supreme Courts of several states have sustained the decisions of these most impartial tribunals.

Providence has been kind to the officers of our organization. We have had 15 presidents and all but four of them are still actively engaged in the grain trade—just one having passed on. Our present secretary, Charles B. Riley, has served us efficiently for more than 17 years and to him we owe more than all the others, our success as an organization. Our prayer is that he may be spared to serve us many years to come.

Our association is in a healthy condition and the Indiana grain trade as a whole, in ability and personnel, will compare favorably with any body of business and professional men anywhere. No business in the world is conducted on a fairer basis. We give and ask only for a square deal and ask for no special privileges from anyone.

Following this address, the president named the convention committees, as follows:

Resolutions Committee: V. E. Butler, Charles Northlane, William Hayward, Charles S. Clark and C. A. Ross.

Nominating Committee: Ralph Singer, Sanborn; Frank A. Witt, Indianapolis; Charles Stevens, Frankfort; Philip Wolfram, Brownsburg; and Claude Hedworth, Remington.

Auditing Committee: Don Hart, Indianapolis; Ed Anderson, Indianapolis; Bert Springer, Indianapolis.

Secretary Charles B. Riley read a telegram from

C. D. Sturtevant, Omaha, Neb., president of the Grain Dealers National Association, and a cablegram from Bert A. Boyd, treasurer of the Indiana Grain Dealers Association, now in Europe.

Secretary Charles B. Riley read his annual report, and spoke on the activities of the association in trying to improve conditions in grain trade, and eliminating sharp practices. In speaking of the benefits of the association, Mr. Riley said: "Benefits derived from the state association are far in excess of the annual dues, and many problems that couldn't be worked out by the individual are solved by the association. One of the biggest problems today that the association is trying to solve is the reducing of corn grades, and this in itself is a great problem and will only be accomplished by association work."

Frank N. Wallace, state entomologist, next gave a short address on the European Corn Borer. One of the principal features of the address was a map showing the restricted areas in Indiana where corn cannot be shipped from, on the cob. The problem of how to handle the borer is a difficult one, said Mr. Wallace, and he continued with specimens of the corn borer in stalks that were cut open and displayed. In some instances as many as 40 borers in one stalk have been found. Some few questions were asked, but since Professor Christie had thoroughly covered the situation, little was left to be said.

Fred Pond, secretary of the Buffalo Corn Exchange, Buffalo, N. Y., addressed the meeting. Mr. Pond urged the mid-summer meeting of the Indiana, Ohio and Michigan grain dealers be held in Buffalo and extended a hearty welcome.

Prosperity has not been distributed so that agriculture gets its proper allotment was the theme of an address by W. H. Lykins, president of the Citizens Bank of Covington, Ind. Farmers' ability has been greatly reduced in meeting obligations, and this realization has reduced his courage, he has suffered greatly and feels helpless, he continued. The farm production cannot be limited like the manufacturers, and the condition is one beyond control. With conditions existing unlike that of other industries, the farmer needs lots of encouragement, since weather conditions and market conditions are beyond his control.

"The Past Present and Probable Future of the Farmers" was the subject of Elmer Hutchison of Arlington, Ind. "I am decidedly in favor of organization for the farmer," said Mr. Hutchison, "but it is a difficult matter to get farmers to attend grain dealers' meetings. Most farmers have been led to believe many false reports about the middle man, who is just as important as the farmer, but the existing prejudice still hangs on." Old and new methods of farming were discussed, and the important role the agricultural colleges have played in improving farming and living conditions on the farm, and bringing about a keen competition today among efficient farmers. "There is one objection to some of the agricultural schools," said Mr. Hutchison, "in some instances they have featured some products too extensively and upset conditions. Another bad feature that is breaking down the spirit of the farmer is the propaganda that is being put out. Entirely too much there is to be beneficial and this should be guarded against since too many present day farmers are pessimistic." Mr. Hutchison spoke of the losses of corporations, and manufacturing concerns, and when comparing same found the farmer had by no means been the greatest loser. In closing, Mr. Hutchison said that too many agitators were spreading poisonous propaganda among farmers, which in time would bring about a serious condition.

"Insurance and Its Increasing Hazards," was the topic of J. J. Fitzgerald, secretary-treasurer of the Grain Dealers National Mutual Fire Insurance Company. Reduced rates on insurance was given as the reason the organization of the association, said Mr. Fitzgerald, but, he said, "we have just passed through one disastrous year with 16 fires in 1927 and an increase of \$150,000 in losses. The organization has paid five year losses during 1926 and 1927 and it is absolutely necessary to reduce the amount of fires. Fortunately we have just looked upon a few with suspicion, and urged members to be more careful. One of the things highly important is cleanliness; a clean elevator is a good risk, while a dirty elevator expects the same protection, and does nothing to warrant it. Repairs are another vital thing to keep up and one most important thing is the water barrel and bucket. It is a rather crude protection, but the humble water barrel and bucket has saved the day on many occasions when complete destruction would have resulted save for the barrel and bucket. Lightning rods are another protection, and the cost is very small, in fact an elevator can be rod-ded for about \$50 and this price has been made possible by the association." After a review of the fires of the past year, Mr. Fitzgerald closed by urging elevator men to exercise more precautions against fire and help reduce losses. Owing to the banquet at the Columbia Club Thursday evening, the meeting adjourned. Three hundred and one covers were laid at the banquet table of the

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Indiana Grain Dealers convention at the Columbia Club, and the grain men and their friends enjoyed a very good dinner, after which there was dancing and a round of merry entertainment.

The meeting on Friday was called to order at 9:30 a. m. by the president, and the first address, "Compensation Insurance" was made by W. H. Newsom, president of the Indiana Liberty Mutual Insurance Company of Indianapolis. Compensation insurance, which comes under the workmen's compensation law, was discussed thoroughly. The law is the one law that is compulsory in Indiana, and a complete law within itself. When employers comply with the law the employe has no recourse in the courts, and Mr. Newsom urged all elevator operators to protect themselves by taking out compensation insurance as a protection to themselves and employes. The subject seemed to be of much interest to many of the elevator operators, and many questions were asked.

"Weighing and Care of Scales," by J. A. Schmitz, chief weighmaster of the Chicago Board of Trade, was the next number on the program.

ADDRESS BY J. A. SCHMITZ

I am indeed glad of this opportunity to talk to you on the subject of weighing and proper facilities therefor. I do not recall a time when the percentage of our grain receipts, from points east and southeast of Chicago, has been as high as during the past two years. Hence, I take it that our Department of Weights has weighed considerable grain for members of the Indiana Grain Dealers Association. Incidentally, if any of you have had experiences, of any character, in which Chicago weights have been concerned, which you would like to discuss with me, I would be glad to have you take them up while I am here. Such persons' discussions between shippers and Terminal Weighmasters, concerning matters of weight, should prove mutually helpful.

Now, with respect to that part of the subject assigned me that pertains to proper facilities for weighing and handling grain to cars. The correct answer to this mooted question, (if the answer is to be practical and of value) is dependent on three factors, to wit: (1) Local physical conditions in each individual country elevator which conditions vary materially; (2) volume of grain to be weighed which, obviously, will largely determine the amount of money to be spent for the facility and its installation; and (3) whether or not the weights to be determined are to be used for settlement purposes between buyer and seller. It is all very well for claim agents and weighing authorities emphatically to express themselves on the inadequacy or unsuitability of this or that facility for determining weights of carload shipments at country elevators. But any such expression, applied generally, that fails to concede that physical conditions, volume, and purpose, are practical factors directly related to this problem, can be brushed aside as prejudiced; or they are made without full knowledge of all the circumstances involved. The fact that it is practical to define, with crotchets, facilities, that shall be used at terminal markets, where settlement weights are determined, does not necessarily indicate that such a course is practical at country grain elevators.

On the other hand, I have inspected much equipment at country points, the character of which did not suggest that much attention had been given to the possibilities and the needs of the situation. But even so, grain handling and weighing facilities are often inherited, so to speak. In any case, they cannot be changed over night, as some of those advocating the recognition of only so-called "Class A" facilities would have us believe. We have learned that accuracy is not dependent entirely upon the type, or the capacity, of a facility, but rather upon its proper care and maintenance, and upon its correct operation. And I shall endeavor to drive this point home to you, by asking a series of questions as follows:

Hopper Scales

Is your hopper scale provided with a recording beam; if not, do you check the weights by entering the number and denominations of the hanger weights used in weighing each draft, comparing this record with the weight set down?

Is the mechanism of your hopper scale clear of all obstructions?

Do you make frequent examinations of the clearance between the revolver of the scale and the spout into which it leads?

Is there any condition existing that may cause grain to go astray on its way to the car?

When was your scale last tested by a competent scale man? And was it tested under a full load?

Do you know that in testing, test weights should be applied to all four corners of your hopper scale?

Do you know that the accepted tolerance for hopper scales is one-half pound for each one thousand pounds?

Do you know that weighing authorities have specified that the minimum amount of test weights needed to properly test hopper scales is 8 per cent of a scale's capacity?

Automatic Scales

Is your automatic scale so located that all grain weighed through it must go to the car? Or is your scale so located that the grain must be re-elevated after weighing? If so, what precautions do you take to see that all the grain weighed reaches the car?

How often do you examine the boot, and the hopper leading to it and the housing, the elevator head, and the spouts, of the scale, to see to re-elevate the grain after weighing, to assure their grain-tight condition?

Do you see to it that the compensator is properly adjusted at the beginning of the weighing of each carload; and that its accuracy is checked at least four times during the weighing of each carload?

How often is your automatic scale balanced? Rules for operating automatic scales provide for the removal of all weights and for balancing once each week.

How often is your automatic scale tested by a competent scale man?

Is your scale kept clean?

Do you make a check of the weights in the weight box each time you load a car?

Do you keep a continuous record of the automatic counter of your automatic scale; and does this record agree with your book record of shipments?

What is the condition of your loading spout? When did you examine it last? Is the lower side wearing thin? And when do you think it will wear through?

Wagon Scales

When installing your scale, did you give first consideration to its proper location in the interests of the

welfare of the scale itself, rather than your own convenience? If not, are you making up for it by additional care?

Is your scale "housed," or otherwise protected against the elements?

Is the scale pit properly drained; and is it kept clean?

Do you know that a dirty, wet, scale pit is the prime source of deterioration of the scale parts; and that more scales rust out than wear out?

Do you know that the deteriorating effect of a wet pit extends to every part of the scale installation?

Do you know that rapid deterioration of the vital parts of a scale hastens that period of inaccuracy that precedes the overhauling, or the replacement, of wagon scales; and the large expense incident thereto?

Do you know that clearances around the scale platform should be of such dimensions that ordinary inspection will disclose any interference?

Do you know that the beam and the extension, or shelf lever, of a scale should receive additional protection in "housing," since these parts, especially the beam, are most quickly affected by corrosion?

Do you know that dirt in the notches of a compound beam will cause considerable error?

Do you know that test weights to the amount of at least 10 per cent of the capacity of a scale are necessary to properly test a wagon scale?

Do you know that all scales should be tested empty, and loaded to their working capacity?

When was your scales last tested?

Did you have a competent scale man make this test?

Records

Do you use a bound book for entering all weighing records?

Do you enter your records of weights, immediately on making the weighing?

Are the entries in your weigh book original entries, or are they copied from cards or other temporary memoranda?

Does your record contain all information regarding the car, including initial, car number, each draft, how checked, seals under which the car left your station, and so forth?

In the absence of Bert A. Boyd, treasurer, Mr. Riley read the treasurer's report.

The next order of business was the report of the Nominating Committee, after which the following officers were duly elected: President, Walter Moore; vice-president, E. E. Elliott, Muncie; treasurer, Bert A. Boyd; secretary, Charles B. Riley.

The appointment of the men on the Grain Improvement Committee will be done later, and C. C. Cole, Bluffton, and Jessie Deane, Frankfort, were elected to the Board of Managers.

"Feeds, Commercial and Other Kinds, Including Local Production," by H. R. Kraybill, chief chemist of Purdue University, was next discussed. Not only Indiana wheat feeds are lower in protein, said Mr. Kraybill, but the situation is nation wide, and elevators handling this commodity should not be discouraged when it is necessary to have the state tags changed but reserve the old tags, which can be used later. The lower protein content is the result of the adverse season, a condition over which there is no control. Mr. Kraybill showed the increasing demand for mixed feeds by presenting figures of 1926 and 1927. In 1926 there were 337,000 tons of feeds used and in 1927 there were 435,000 tons used, an increase of 98,000 tons. The increase spread throughout the year and was equally distributed, and was general in most feeds, poultry feeds particularly. At present there is a greater demand for the mash poultry feeds than the scratch grains, and 1927 showed a marked increase in the use of mash feeds, and a decrease in feeds with grit content. The decrease in the feeds with grit content is laid to the fact that hens can get plenty of grit when on range, and only housed poultry need grit in their feeds. However, the use of lime stone grit was highly advocated.

One of the worst complaints during the year was that of hominy feeds. Many feeders complained that the hominy feeds were not palatable, and many investigations were made but the feeds met with the analysis tags. The trouble, however, is not confined to any one manufacturer, and the authorities at the university are still in the dark. One other caution to dealers was the handling of digester tankage for hogs. Tankage covers a multitude of sins and in some cases indiscreet manufacturers used many substitutes and foreign matter. In further discussion, Mr. Kraybill pointed out the value of the law, inasmuch as it protected the dealer and the farmer likewise. The law protects the dealer, and manufacturers outside the state who violate the law are not permitted to enter the state, unless they reimburse dealers for feeds not in keeping with the state laws.

Carl F. Berger of Sidney, Ohio, spoke of the advantages of grinding equipment in elevators. With the agricultural schools over the country encouraging farmers to have their own grain ground, and mixing their own feeds it behooves every elevator operator to be equipped to meet the growing demand of grinding. Feed grinding as a side line is profitable, said Berger, providing the elevator is equipped with the necessary modern handling equipment.

Clyde C. Cole, manager of the Studebaker Grain & Seed Company, Bluffton, Ind., discussed handling feeds and other sidelines. Grain business has developed into a sideline, said Mr. Cole, when we compare it with some years back. Many elevators who bought a few hundred pounds of feeds some years ago, are now buying in car load lots. Farmers who it seems but yesterday refused to listen to the value of prepared feeds, are now swearing by them, which shows that the concentrated feed

is gaining favor. Feeds as a side line are profitable, easily handled and ready for the consumer. Elevator men should encourage the use of concentrated feeds and handle them as a sideline.

"Selling for Cash: Its Advantages and Disadvantages," was discussed by O. J. Gingrich of Lafayette, Ind., and operator of nine stores in that city. He insists that credit is abused more than it is used properly and in his experience in business he has found that it had made more enemies and lost more business than any other evil.

The president was then presented with the report from the Resolutions Committee, which was read and approved.

REPORT OF THE RESOLUTIONS COMMITTEE

From year to year the association is called upon to record the loss by death of members or loved ones of members' families. Bennett Taylor, a long time member of this Association has sustained the loss of a loving wife, and Mr. Lloyd F. Simson sustained the loss of Mrs. Simson early this morning. To these two members this association extends its heartfelt sympathies.

There being still further effort being put forth in Congress for the application of the Metric System of Weight and Measure, be it resolved that this association again reiterates its opposition to such law because of the unwarranted expense caused by the elimination of the existing equipment.

The Indiana Grain Dealers Association recognizes the menace to the corn belt and American agriculture from the European corn borer which is now approaching from Ohio, Michigan and north eastern Indiana. We learn of the great losses caused by this insect in the area in which it is now found. We sincerely feel that everything possible should be done to fight this insect and to prevent its spread into new territory.

The great corn belt should be protected as long as possible until better methods of control can be found and applied. Therefore, be it resolved that this association favors the appropriation of not less than \$10,000,000 dollars by the United States Congress, which will be used in co-operation with the states in the fighting of the corn borer and in reimbursing farmers for extra labor employed in this work. We further recommend that efforts be made by Congress to bring about co-operative relief work from the Dominion of Canada, the home of this pest, for we realize that without an effort to stamp it out in Canada, there can be but little hope for ultimate success in the states. We recommend that a copy of this resolution be forwarded to each member of Congress and to the Secretary of Agriculture and to the President of the United States.

There is apparently quite broad dissatisfaction with the present corn grades as promulgated by the Department of Agriculture and it is the opinion of this Association that corn grades should be based upon its commercial use. Therefore, be it resolved that this Association recommend to the Department of Agriculture that the present grades of corn be changed to four grades and a sample grade, thereby eliminating two grades from the present system.

At the annual convention of the Terminal Grain Weighmasters National Association held at Omaha, Neb., in October, 1927, a resolution was passed calling attention to the garner construction in terminal elevators which provides for the proper construction for the discharge of grain into scale hoppers. Therefore, be it resolved that this Association endorse this movement and urge that the matter be called to the attention of elevator builders, designers and owners by H. L. Goeman, chairman of the Transportation Committee of the Grain Dealers National Association.

It having been found that shippers weight cards have proven of great benefit to weighmasters at Terminal markets in checking the accuracy of their scales, therefore be it resolved that this association approve their use and recommend that H. L. Goeman be urged to procure their use by the grain trade throughout the country through efforts of the National Grain Dealers Association.

It has been called to the attention of the Resolutions Committee that much complaint has been made of terminal weights in many markets and it appears to your Committee that this is a matter so serious that it needs investigation. Therefore, be it resolved that your president appoint a committee to investigate weighing wherever complaints may be made and that this committee co-operate with the freight claim agent of the different railroads of the country in order to correct this serious abuse.

The railroads are seeking to make many changes in the methods of handling commodities, some of which are very important to the grain trade and they are at this time undertaking to discontinue the use of the break bulk freight system, and believing that this is of great disadvantage to the shippers in this association, be it resolved that the officers of this association use their efforts to forestall the discontinuance of this rule.

The Indiana Millers Association have a Committee on Wheat Improvement for the State of Indiana, and it is their desire that this Association appoint two members to work with this committee. Therefore, be it resolved that your president appoint such members of the committee and so advise the Indiana Millers Association.

A matter of importance has been called to our attention relating to the invitation extended by Buffalo to this association to hold its summer meeting there in conjunction with other states, and as this matter should go to the Board of Managers, we move that it be given to the Board of Managers for their consideration and determination.

We have again been fortunate in having talented speakers from many sources for our convention, therefore, be it resolved that we extend our sincere thanks for the many interesting talks and the valuable information received from them. Be it further resolved that we extend our thanks to the officers of this association for their services and untiring efforts in the betterment of the grain trade in Indiana for the past year, and be it further resolved that we extend our thanks to the Indianapolis Board of Trade and its individual members for the courtesy of the use of their building and for the splendid entertainment and hospitality of the banquet held at the Columbia Club.

The convention having concluded its business, the meeting then adjourned sine die.

FEED MERCHANTS WILL MEET

The Eastern Federation of Feed Merchants will meet February 22 and 23, at Binghamton, N. Y. On the morning of the first day there will be the first business session, and after routine business

has been dispatched, including committee appointments, several speakers will be called upon. The Advisory Council will have a luncheon meeting at 12:30. There will be one speech at the afternoon session, followed by discussion among the members. The convention will close with the next day's morning session. Among the features of the convention there will be an advertising exhibit by retail merchants. Secretary Stannard states this will essentially be a retailers' meeting. All members as well as merchants who are not at present members but who are qualified in the business are being urged to attend. Entertainment is being prepared and it is said this part of the program will be just as attractive as last year.

CONVENTION CALENDAR

February 21-23.—Twenty-first annual convention of the Farmers Elevator Association of Minnesota, at the West Hotel, Minneapolis, Minn.

February 22-23.—Mid-Winter meeting of the Eastern Federation of Feed Merchants, at the Arlington Hotel, Binghamton, N. Y.

February 23-24.—Annual meeting of the Farmers Elevator Association of Indiana at Logansport, Ind.

February 28-29.—Annual meeting of the Farmers Grain Dealers Association of North Dakota, Grand Pacific Hotel, Bismarck, N. D.

May 29-30.—Pacific States Seedmen's Association's annual convention, at Portland, Ore.

September 24-26.—Thirty-second annual convention of the Grain Dealers National Association, at the New Hotel Statler, Boston, Mass.

May 10-11.—Thirty-fifth annual convention of the Illinois Grain Dealers Association, at Joliet, Ill.

June 19-20.—Forty-ninth annual convention of the Ohio Grain Dealers Association, at the Elks Temple, Lima, Ohio.

August 20-22.—Thirty-fifth annual convention of the National Hay Association, at Fort Wayne, Ind.

IOWA FARMER DEALERS MEET

The twenty-fourth annual convention of the Farmers Grain Dealers Association of Iowa met in Cedar Rapids on January 24, 25 and 26, with headquarters at the Montrose and Roosevelt Hotels. Meetings were held in the City Auditorium, and Station WJAM broadcast most of the program. The address of welcome was made by Mayor William C. Loftus, and the response was by President S. J. Cottingham, who reviewed the work of the association during the past year.

Dr. J. E. Brindley of the Iowa State College then addressed the meeting on the topic of "Co-operation and Competition," after which the convention committees were appointed, as follows:

Resolutions Committee: C. H. Hall, Glidden; C. J. Kelsey, Iowa Falls; George E. Beals, Humboldt; O. K. Mabey, Garner; Gaylor Snedecor, George.

Credentials Committee: A. E. Peterson, Albert City; W. G. Lindgren, Forest City; W. V. Crapser, Thornton.

By-laws Committee: A. C. Bennett, Livermore; H. W. Carter, Sergeant Bluff; Roy Pullen, Spencer.

Re-Districting Committee: George D. Berogan, Webster City; G. A. Lindquist, Stanhope; Otto Peters, Sutherland.

Arbitration and Investigation Committee: F. J. Swanson, Akron; F. E. Carlson, Boxholm; Jorgen Anderson, Graettinger.

Secretary J. P. Larson read his annual report, commenting on farm relief, the status of the companies, federal financing, income tax rebates, inspection and grading, field work, railroad claims, association growth and numerous other subjects of interest to the membership present.

W. J. Kuhrt addressed the meeting on "The Future of Farmers' Elevator Companies," saying, in part:

Estimates of the number of farmers' elevators now operating in the United States vary considerably; the Department does not know exactly how many farmers' elevators there are at present. However, we have records and reports from 3,282 farmers' elevators in our files at this time. Conservative estimates have placed the number now active at about 4,000 and some authorities have ventured estimates as high as 5,000.

Based upon the replies received it is estimated that about 65 per cent of the farmers' elevators in the United States are now operating as co-operative associations, that is, with a limit on the percentage of dividends payable on capital stock and with provision for the payment of patronage dividends. Separated according to the five producing areas the estimated percentages which are operating as co-operatives are as follows: Spring wheat area, 74 per cent; Winter wheat area, 73 per cent; corn belt area, 58 per cent; Central States Soft wheat section, 70 per cent; and Pacific States, 32 per cent. The reports indicated that about 58 per cent of the farmers' elevators in Iowa are operating as co-operatives.

Regarding memberships in these associations, that is the number of stockholders interested, the survey indicated that the average number per elevator in the United States is 126. For 3,282 elevators that would indicate a total of 413,532 stockholders. For 4,000 elevators it would mean about 504,000 stockholders. Divided into areas, the Spring wheat elevators averaged 107 stockholders; the Winter wheat elevators, 122; the corn belt, 137; the Soft wheat states, 136; and the

Pacific States, 115. The average number of stockholders per elevator in Iowa was reported as 140.

In addition to the paid-up capital stock, the elevators reported an average net surplus per elevator of \$7,447. Based on 3,282 elevators this amounts to \$24,441,054.07. If based on 4,000 elevators, \$29,788,000. By areas the Pacific Coast area showed an average surplus per elevator of \$16,431; the Soft wheat states, \$8,670; the Spring wheat area, \$7,416; the corn belt, \$6,869; and the Winter wheat area was lowest with \$6,724. The average surplus reported by Iowa elevators was \$6,925 per elevator.

Investment in plant and equipment of farmers' elevators in the United States as a whole averaged \$17,988. For 3,282 elevators, this would mean \$59,036,616, or for 4,000, a total of \$71,952,000. The highest average investment in plant and equipment is in the Pacific Coast States where the data show an average of 27,338. The Soft wheat states showed an average of \$19,147; the corn belt, \$18,348; the Winter wheat area, \$16,945; and the Spring wheat area, \$16,416. The average investment in Iowa farmers' elevator plants and equipment was found to be \$15,851.

Farmers' elevators handle a tremendous volume of business annually. Data for the 1926-27 season show that the average volume handled per elevator was 155,863 bushels; that is a total of 511,698,229 bushels based on 3,282 elevators and 623,452,000 bushels based on 4,000 elevators. The Pacific States elevators handled the largest volume averaging 204,501 bushels; the Winter wheat states averaged 195,289 bushels; the corn belt, 187,391 bushels; the Spring wheat area, 102,869 bushels (this average is low for the area because of the short crop in 1927-27); and the Soft wheat states showed an average volume of 74,608 bushels. The average number of bushels sold in 1926-27 by farmers' elevators in Iowa was 190,591.

In addition to the grain handled, a large proportion of farmers' elevators reported the volume of sidelines handled. The average sales value of sidelines sold was \$50,710 per elevator, for those elevators which handled sidelines in 1926-27. The Soft wheat elevators handled the largest average volume of sidelines, averaging in sales value \$90,191; the corn belt handled the second highest volume averaging \$61,478; the Pacific States averaged \$45,334; the Winter wheat area, \$42,463; and the Spring wheat elevators, \$20,318. The average for Iowa elevators was \$87,209.

Including both grain and sidelines, the average sales value of products handled by farmers' elevators in the United States was \$188,831, for the 1926-27 season. Based on 3,282 elevators this would total \$619,743,342, or if you prefer to use 4,000 elevators the total volume of sales in 1926-27 amounted to \$755,324,000. This volume exceeds by far the annual volume handled by any other farmers' organizations handling a given class of commodities in the United States.

While the present condition of farmers' elevators appears to be quite satisfactory, it is not a time for resting upon laurels. There are many problems which local organizations must meet if they are to maintain their present status. Chief among these problems are: (1), Stronger local organizations; (2), reduction in operating costs; (3), pursuance of safer operating policies.

Following this, Secretary J. W. Shorthill, Omaha, Neb., spoke on "A Grain Marketing Policy for the Individual Farmer." Former Senator Magnus Johnson of Minnesota also addressed the meeting, and President A. L. Berg of the South Dakota association was also an interesting speaker. Chief Weighmaster Schmitz of the Chicago Board of Trade also delivered an address. W. H. McDonald, grain inspection supervisor at Chicago, told a number of facts relative to his field of activity, and several of the farmers' elevator operators present also spoke.

A number of resolutions were passed, among them a recommendation for larger appropriations federally for corn borer eradication; furthering inland waterway facilities; endorsing the stand of Mr. Lowden and farm relief; and various other matters. On farm relief Resolution No. 3 specified as follows:

Whereas, past efforts to have enacted into a law some adequate Federal farm relief bill have been futile, and Whereas, there is now pending before the Congress a new measure, therefore be it

RESOLVED: That this body be recorded as heartily endorsing the principles embodied in the McNary-Haugen bill for putting farming on an equal basis with other industries; and insist that the members of any Board of Control appointed under that act to have charge of the marketing organization, must be appointed from nominees made by representative farm organizations.

The following officers and directors were named for the ensuing year: S. J. Cottingham, Stanhope, president; H. F. Tobin, Palmer, vice-president; J. C. Reidesel, Glidden, treasurer; J. P. Larson, Fort Dodge, secretary; Ralph Bartels, Sioux Center, director; Oscar Heline, Marcus, director; C. H. Nelson, Garner, director; H. H. Douglass, Northwood, director; W. S. Criswell, Madrid, director; Wm. Niebuhr, Blairstown, director.

HAY RATES REDUCED

The National Hay Association has been instrumental in having tenth class rates on hay materially reduced, and it is hoped that this will relieve the present situation and permit a larger movement of hay.

Numerous terminal markets, local hay associations and our members individually were instrumental in bringing about the present situation. Some time in the near future this association will attend a formal hearing before the I. C. C. and will attempt to permanently establish tenth class rates on hay, straw and shucks. The railroads, with the best legal talent in the country, will also be represented at this hearing, and naturally will make a strenuous effort to place hay and straw permanently in a class taking a much higher rate than tenth class. Traffic Manager Suttie and other officers of the hay association are already busy working on the case. An expert traffic counsel is to be

secured. An appeal is being made for fullest support of the association so that the necessary moral support as well as financial means will be available in furthering this good work.

COLORADO DEALERS MEET

On January 16, the Colorado Grain Dealers Association held a meeting in Denver, Colo. The meeting was opened by a few words from Glenn Morris, Sterling, Colo., president; after which H. M. Welsh, Sterling, secretary, gave his report; and Robert Lowe, Sidney, Neb., vice-president, spoke. Secretary Charles Quinn of the Grain Dealers National Association, Toledo, Ohio, spoke on the legislative program nationally.

H. G. Mundhenk, secretary of the Denver Grain Exchange, addressed the meeting at some length. Clyde Williams was toastmaster at the banquet given after the meeting. The Denver Grain Exchange were hosts.

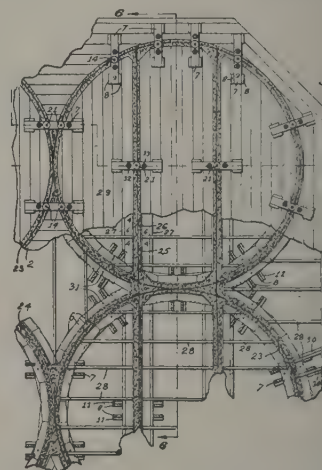
It was decided to hold annual meetings hereafter the second Saturday of June each year instead of in January. The following officers were elected: George Maag, Wray, president; Paul Reimer, Holyoke, vice-president; and Joe Hall, Akron, secretary-treasurer.

GRAIN TRADE PATENTS

Bearing Date of September 20, 1927

Forming concrete structures.—Charles Elmer Roof, Richmond Heights, and Leo M. Dieckmeyer, and Constantine B. Barutio, St. Louis, Mo., assignors to Stevens Engineering & Construction Company, St. Louis, Mo., a corporation of Missouri. Filed May 4, 1926. No. 1,642,753. See cut.

Claim: The herein-described method of constructing a monolithic concrete wall comprising laterally adjoining sections of different heights, the top of the lower section declining with its recession from the taller section; which consists in pouring the same



in superposed layers in a wall form having a level open top, the declining top being formed by pouring the layers terminating therein with their ends in progressively retracted relation to one another, the portions of the said layers adjacent, the said ends being comparatively viscous when being poured so as to remain substantially within the said ends, and the portions of the said layers remote from the said ends being formed of concrete which is comparatively mobile when poured; and in subsequently raising the form after completion of the declining top, and blocking off the form to define the end of the taller section from the space over the declining top, and thereafter filling the taller section space of the form with superposed layers of concrete.

Bearing Date of October 11, 1927

Separating and grading machine.—Frank A. Rappleye, Silver Creek, N. Y. Filed November 11, 1924. No. 1,645,402. See cut.

Claim: In a separator of the character described, a pair of movable surfaces adapted to form a separating trough there between one of said surfaces being formed by a substantially smooth rotatable roll and the other surface being formed by a relatively rough surfaced endless apron adapted to move upwardly through an arc adjacent said roll and thence along an upwardly inclined path.

Seed corn tester.—Thomas Miles Roberts, Willis, Iowa. Filed May 24, 1926. No. 1,644,895.

Bearing Date of November 1, 1927

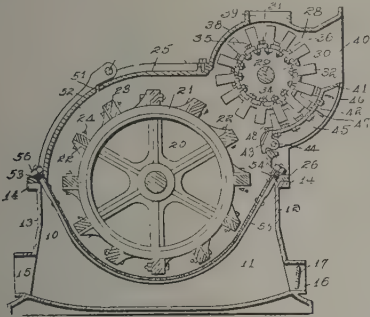
Apparatus and method for curing legume.—Harry F. Galbraith, Philadelphia, Pa. Filed March 11, 1927. No. 1,647,863.

Bearing Date of October 18, 1927

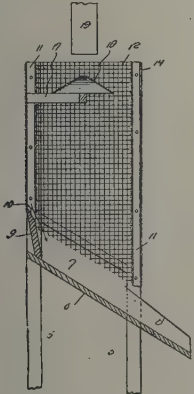
Forage Mill.—Harry J. Olson, Des Moines, Iowa, assignor, by direct and mesne assignments, to Olson Mill Company, Des Moines, Iowa, a corporation of Ohio. Filed April 8, 1925. No. 1,645,770. See cut.

Claim: A forage mill comprising a supporting frame, a shaft rotatively mounted therein, a cylinder mounted on said shaft having a series of radially and outwardly extending teeth arranged in longitudinal

rows, a cutter bar mounted between each pair of adjacent rows of teeth and adjacent to said cylinder, a concave having a series of rows of radially and inwardly projecting teeth, the teeth of said cylinder

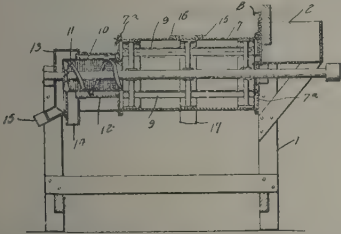


being adapted to travel between the teeth of said concave, a cutter bar between each pair of adjacent rows of teeth and adjacent to said concave.
Grain drier and cleaner.—Jesse Harper Woodward, Perryton, Texas, assignor of one-third to Andrew Hunter Nicholas and Robert Hugh Daley, Perryton, Texas. Filed February 16, 1927. No. 1,645,568. See cut.
Claim: A grain drier and cleaner of the class described including, in combination, a plurality of vertically disposed posts arranged in spaced relation,



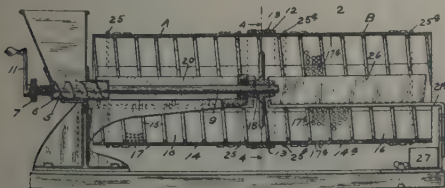
screens of a relatively coarse mesh disposed between the posts in spaced relation to the first mentioned screens and to the outside thereof, and a hopper and spout structure between the posts at the bottom of the screen, a baffle, and means for supporting the baffle between the posts and between the inner screen.

Bearing Date of November 8, 1927
Seed germinator.—Mark Issacs, Minneapolis, Minn. Filed November 4, 1926. No. 1,648,309.
Machine for treating seed grain.—Claude C. Calkins, Heppner, Ore. Filed November 23, 1922. No. 1,648,538. See cut.
Claim: In a grain treating machine, a drum to receive powder-treated grain, stationary end members in which said drum is journaled closing the ends of the drums, means to supply powder-treated grain to the drum through one of said end members, a screen extending from the other end members, a



casing fixedly extending from the latter end member and about the screen to receive the sifted material therefrom, the casing terminating short of the discharge end of the screen, and means extending beyond the casing to receive grain discharged through the screen.

Bearing Date of November 15, 1927
Grain testing machine.—Andrew V. Cleland, Minneapolis, Minn. Filed August 8, 1925. No. 1,649,020. See cut.



Claim: A dockage tester comprising a rotating member having an interiorly arranged spiral section having initial and second sections, the wall of the initial section between said spirals having series of pockets therein adapted to collect round seeds and similar fine material, and means for receiving such seeds discharged by gravity from said pockets during the rotation of said member, a second section

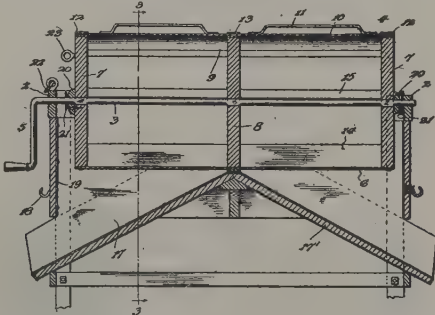
of said member, having pockets in its walls between said spirals adapted to receive kernels of wheat, and means for collecting such kernels during the rotation of said member and a shaft rotably supporting said rotating member and connected to said member only medially thereof.

Bearing Date of November 22, 1927
Grain car door.—Stephen Deneka, Hubbard, Sask., Canada. Filed February 28, 1927. No. 1,649,815.
Bearing Date of December 13, 1927
Grain door table.—Leonard Smith, Batrop, La., assignor to M. A. Mummert, Chicago, Ill. Filed April 18, 1927. No. 1,652,802.

Bearing Date of December 20, 1927
Grain car door fastener.—Walter P. Flynn, Ulysses, Neb. Filed January 22, 1927. No. 1,653,453.

Bearing Date of January 3, 1928
Grain delivery chute.—Rowland C. Clapp, Portland, Ore. Filed October 25, 1924. No. 1,654,719.
Grain treating machine.—Joseph Hailgarth and Earl E. Chandler, Elgin, Ore. Filed April 22, 1925. No. 1,655,144. See cut.

Claim: A machine for the purpose set forth comprising a supporting structure, a chute carried by said support and extending outwardly therefrom, a cylindrical drum of impermeable material throughout rotatably mounted in the supporting structure above the chute and provided with an opening in its circumference, a cover movable into and out of closing relation to the opening, said cover being accurate in cross section whereby to complete the circumference of the drum when in closed position, agitators consisting of rigid blades disposed radially of the drum and secured to and extending between the ends of the



drum for the full length thereof, one of said blades abutting the circular wall of the drum diametrically opposite the opening therein and projecting from the inner surface of the wall radially of the drum and the other blades being out of alignment with said opening and disposed intermediate the wall and axis of the drum at an unequal distance from the axis of the drum with their marginal portions moving in paths overlapping the path of travel of the marginal portions of companion blades.

Bearing Date of December 6, 1927
Seed huller.—William B. Spurr, Scottsbluff, Neb. Filed June 24, 1925. No. 1,651,641.
Dust seed treatment machine.—Francis C. Hersman, Normal, Ill. Filed April 16, 1927. No. 1,651,390.

Bearing Date of January 10, 1928
Grain loader.—Clinton Nichol, Ponca City, Okla. Filed September 21, 1926. No. 1,655,771.
Seed corn grader.—Ira C. Hoffman, LaFayette, Ind., assignor to the trustees of Purdue University, La Fayette, Ind., a corporation of Indiana. Filed March 11, 1927. No. 1,655,422.

Bearing Date of January 17, 1928
Grain elevator.—Herbert Hoffman, Renville, Minn. Filed December 14, 1925. No. 1,657,122.

THE GRAIN WORLD

MOVEMENTS TO MARKET

UNITED STATES wheat is beginning to move in greater volume and total exports for the season, which amount to 104,407,000 bushels, for the first time exceed exports for the same period last year, which were 103,671,000 bushels. The smaller crop in the southwestern states caused the lag in the early season. The Canadian weekly movement from Fort William-Port Arthur and Vancouver has been steadily increasing since October 1 and for the week ending October 21, shipments from Fort William-Port Arthur were 11,894,000 bushels and from Vancouver were 729,000 bushels.

RUSSIAN GRAIN SITUATION

RUSSIAN grain procurements reported at the beginning of October continue on the downward trend, due to the uncertain outlook for the winter crops and also to extensive private buying around Odessa. Some reports from Odessa state the outlook for the winter crops is poor. Winter wheat acreage for the 1928 harvest in North Caucasus, one of the most important wheat export regions of Russia, is given in a preliminary report in *Economic Life* for October 6 at 9,385,000 acres. Actual statistics are not available for 1927 for comparison, but the area is roughly estimated at 8,630,000 acres on the basis of an officially reported 18 per cent increase over 1926 when the acreage was placed at 7,311,000 acres. The 1928 increase is reported to be at the expense of rye and barley. There has been an increase in Winter wheat acreage in that region every year since 1925. Spring wheat acreage has not increased correspondingly. Winter wheat constituted 36 per cent of the total wheat area of the region in 1925, nearly 41 in 1926 and over 41 in 1927. The growth of the Winter belt this year, which is being extended into districts where no winter crops were grown before, is being

favored by three factors: Unfavorable planting conditions last spring which resulted in a reduction of the area planted to summer crops, compared with the original estimates; dry summer resulting in an earlier crop and harvest; and high yields of the winter crops, demonstrating their advantage compared with the spring crops, also their better power of resistance to drought compared with spring crops. In view of the large amount of foreign material contained in the North Caucasian grain considerable efforts are made by the local administration to introduce pure seed grain. Fumigation of the seeds is carried on with a view to preventing the spread of the mould.—United States Department of Agriculture.

WHEAT ELEVATORS FOR NEW SOUTH WALES

ALTHOUGH the wheat harvest in New South Wales will be considerably reduced owing to the unfavorable season, the government has been speeding up the construction of wheat elevators and other arrangements for increased facilities for bulk handling of grain, states a report from E. C. Squire, American trade commissioner at Sydney. It is stated that 70 per cent of the wheat delivered at elevator railway stations has been placed each season in the elevators, the remaining 30 per cent having been represented by bagged wheat sold to flour millers and low grade grain rejected at the elevators. Of the wheat exported this season from Sydney, 50 per cent has been in bulk. Wheat buying firms, it is stated, prefer, where possible, dealing in bulk rather than bagged wheat, as bulk wheat relieves them of much responsibility from losses, which are more or less inseparable from the stacking, protecting and transport of bagged wheat. Six elevators, each with a capacity of 150,000 bushels, are to be put into use for the coming harvest. Two other plants, each with 30,000 bushel capacity, are also to be operated in the coming season. All these have been constructed on the new design, which provides for the construction of the bins in square formation, with the small working house, machinery, and scales all centered in each elevator.

THE production of cleaned rice in Madagascar in 1927 is 1,152,652,000 pounds, according to the International Institute of Agriculture at Rome. This estimate is 41 per cent above the 1926 crop but almost 20 per cent below the 1925 crop. The total rice production in the nine countries for which reports have been received in 1927 is 29,546,423,000 pounds as compared with 28,049,997,000 pounds in 1926, an increase of 5 per cent.

THE total production of oats for 1927 in 34 countries so far reported now stands at 3,506,769,000 bushels compared with 3,566,900,000 bushels last year, a decrease of 1.7 per cent. The final estimate of the Canadian crop shows a decrease of nearly 13,000,000 bushels from the previous estimate, to 439,713,000 bushels compared with 452,421,000 bushels. However, this is still nearly 15 per cent larger than last year's crop. The second estimate of the Argentine crop is also nearly 12,500,000 bushels below the first estimate, and now stands at only 52,290,000 bushels, which is almost 21 per cent below that of the preceding year.

TRANSPORTATION

PROTEST "KATY" TARIFFS

The Fort Worth Grain and Cotton Exchange, the Clement Grain Company of Waco, and the Early Seed & Grain Company, Waco, Texas, have joined with the Chambers of Commerce of their respective towns in sending a formal petition to the Interstate Commerce Commission at Washington, asking a suspension of the proposed new tariff of the M. K. & T. Railroad on shipments of grain originating at interstate points in Kansas, Oklahoma and Nebraska. A final decision of the commission will be reached and announced next month.

RATES HAVE NO EFFECT ON CORN PRICE

No definite relationship exists between freight rates and fluctuations in prices paid to farmers for corn, according to a study just completed by the Bureau of Railway Economics. On the contrary, the study, which is very comprehensive and which covers the four crop years ending with that of 1926-1927, shows that at points having the same freight rate to a primary market, the prices paid to farmers for corn not only differed considerably, but showed no uniformity even in their differences.

The Bureau declares that the general stability of freight rates on corn is shown by the fact that, out of 260 freight rates from various points to principal primary markets, only 21 changes occurred during the four years covered by the study. Of these changes, all of which were in the nature of minor adjustments, 16 were decreases and only five were increases.

During this same period, however, the prices of corn fluctuated from week to week, from month to month, and from year to year. This marked contrast leads the Bureau to the conclusion that the transportation cost was not the cause of the ever changing price situation, but that other factors, singly or in combination, were responsible.

FIELD SEEDS

SEED DEALERS MEET

The mid-winter meeting of the Farm Seed Association of North America was held at Chicago, Ill., on January 16-17, at which A. J. Ogaard was elected business manager of the association. Those in attendance decided to hold the annual meeting of the association on June 26 and 27 at Chicago.

NEW "SEED COMMITTEE" AT NEW BRUNSWICK

A new committee to be known as the "Seed Committee" has been formed following a meeting of the provincial and Federal departments of Agriculture of New Brunswick at Fredericton, which will have as its purpose improving the quality of seed produced in that province. The duties of the new committee will include the study of seed varieties as to their suitability for the different parts of the province and to recommend varieties eligible for registration, the planning of a program for the dissemination of good seed and in general to work for the improvement of the seed production. Spring seed fairs will be held at Moncton and Bathurst.

INDIANA TRADE SLOW

By W. B. CARLETON

Trade with the wholesale and retail seed dealers of Indiana has been rather slow since the first of the year; in fact, the trade has lacked pep. Dealers believe there will be a marked improvement in business between now and the first of March and after that date they say that trade ought to be something like normal again. Most of the wholesalers, as well as dealers, profess to believe that 1928 is going to be a better year for them than was 1927.

J. A. McCarthy, of the J. A. McCarthy Seed Company, Evansville, Ind., who is a member of the State Seed Certification Committee of Indiana, recently attended the annual agricultural conference at Lafayette.

Reports from many parts of Indiana are to the effect that the below-zero weather on the first of the year and the many freezes since then, have greatly damaged the wheat crop in many parts of the state. Many of the fields that your correspondent has seen during the past month are dried up and appear to be completely destroyed. Many farmers and grain dealers in the "pocket" section in southwestern Indiana say that fully one-fourth of the growing crop has been killed.

Announcement has been made of the sale of the Monroe Seed & Feed Company at Mt. Vernon, Ind., to A. C. Wilson and his son, Arnold Wilson, the company having been sold by J. M. Monroe, who now is located in California. For the past year the business had been operated by Mr. Monroe's son, Charles Monroe, who has no business plans for the immediate future. The new owners have taken charge of the business.

John K. Jennings, of the Diamond Feed Company, Evansville, Ind., and well known to the seed dealers of southern Indiana, recently showed some moving pictures before members of Post J. Travelers' Protective Association, in Evansville, of scenes he had taken while in Europe last year.

E. E. McAtee, for many years associated with the Ohio Valley Seed Company in Evansville, has returned from a business trip to several southern Indiana towns.

Robert N. Wallace, 79 years old, for many years owner and manager of a grain elevator at Frankfort, Ind., and well known to the seed dealers of that section, died a few days ago at his home at Frankfort, death being due to a stroke of paralysis. He is survived by the widow and one daughter.

Garland E. Chrisney, who recently took over the retail seed business at Chrisney, Ind., which for many years was operated by his late father, John P. Chrisney, says the outlook for spring trade is quite promising at this time.

Nelson Kelley, manager of the Mt. Vernon Milling Company at Mt. Vernon, Ind., has recovered from an attack of the mumps. While he was sick he conducted his business with the aid of a telephone, which he had at his bedside.

Oscar A. Cook, retail seed dealer at Boonville, Ind., is contemplating a number of improvements in his warehouse located by the Southern Railway Station at Boonville, during the coming season.

Charles Kindermann, of William Kindermann's Sons, retail seed dealers at Boonville, Ind., has returned from Indianapolis, where he attended a meeting of hardware and seed dealers.

Timothy hay in southern and central Indiana

has been moving well during the past month, with the price holding stationary. Reports say that the hay crop has stood the cold weather very well up to this time and indications are there will be a good yield next summer. Clover hay has been grown more and more by southern Indiana farmers in recent years, also Alfalfa.

Indiana farmers in many counties report there is little good seed corn at this time. Indications are there will be a great scarcity next spring. Farmers are planning to increase their corn acreage over that of last year. Quite a number of the farmers are holding their corn now, as they feel there will be a better price a little later on in the year.

NEW BUSINESS MANAGER FOR SEED ASSOCIATION

At the last meeting of the Farm Seed Association of North America, provision was made for an intensive campaign increasing the membership of the association and enlarging its scope of work. Following the plan adopted then, A. J. Ogaard was appointed business manager of the association.

Mr. Ogaard has been in close touch with the seed trade for many years. He attended the University of Minnesota and also the North Dakota Agricultural College, graduating with the class of 1913.



A. J. OGAARD

He specialized in agronomy. He spent five years with the Dry Land Department of the United States Department of Agriculture and later went with the North Dakota Experiment Station. He was county agent at large in Montana from 1918 to 1920, and from 1920 to the present time he was extension agronomist and secretary of the Montana Seed Growers' Association, at Bozeman, Mont. He was also for two years president of the Crop Improvement Association and recently was chosen president of the Seed Council of North America.

Headquarters will be established in Chicago in April by Mr. Ogaard.

HOW A RAW COMMODITY BECAME AN ADVERTISED PRODUCT

By D. M. HUBBARD*

"We hesitate to make such a report, but we honestly do not believe you have anything which can be advertised profitably," said an advertising agency representative to one of its clients. "Studying your business from every conceivable angle we have reached the conclusion that you do not need an advertising agent's services."

Such reports from advertising agencies to their clients are uncommon to the point of extreme rarity. In this case the verdict "nothing to advertise" stimulated the manufacturer to the first real inquiry he had ever made as to what he had to

sell and why his merchandise should be preferred over other merchandise by buyers.

Starting as a small retail store selling farm seeds and stock feed before the Civil War, this business, which must be anonymous here, grew over a period of years to national proportions. Without advertising it expanded until branches in several cities were in operation. Several years ago, when a new plant covering as much ground as a good-size farm was opened, the company began to think about creating new sales tonnage.

"We became interested in advertising to the point of asking ourselves whether it could promote sales for us at a reasonable cost," this company's sales manager says. "Accordingly, we agreed on what seemed to be an adequate trial appropriation.

"After a preliminary investigation our advertising began to appear in a few picked markets. No startling results followed. But we were prepared to sit tight and wait a while before presuming to judge the value of our campaign. It came as something of a shock, therefore, to have our agency tell us frankly that in its opinion we had nothing which we could advertise profitably.

"Nothing to advertise! But we wanted to advertise. We needed increased sales volume to keep our new plant busy. Equally important was the matter of controlling sales. Now competition made it desirable to tell our story to the farmer and we learned that we had no story to tell."

Since that time, about four years ago, this company has again become an advertiser. It advertises to but one market, the farmer. That fact, however, need not lessen the value and interest of its experience for any other advertiser, general or class.

"It did not take long for us to realize that advertising without a genuine *raison d'être* at its core is worthless," remarked one of the company's officers to *Printers' Ink*. "There must be simple, justifiable and logical reasons for buying any useful product. 'What is the peg,' we asked ourselves, 'on which we hang, not just advertising copy, but convincing advertising copy with a bite to it? How can we make the buyer see why our seeds should be preferred? What will make him visualize what our chemists, mechanicians and cleaning experts have done to increase his chances of profitable crops through better seeds?'"

Now differences in farm seeds are always more important than they usually appear to the buyer. Various state laws recognize that fact and require that packages of farm seeds shall carry labels showing their relative purity, germination test, the quantity of weed seeds present and the name and approximate number of noxious weeds present. It might seem that those provisions surround the buyer with a high enough protective barrier. Nevertheless, it is a difficult matter to induce the buyer to examine and compare the various figures relating to purity, germination and weeds when actually making his seed purchases. For example, one seed costs the farmer 35 cents less per bushel than another. Its tag shows "weed 1 per cent" as compared with "weeds 1/10 of 1 per cent" on the slightly more expensive seed. The few cents saved in buying the cheaper seed may turn into a loss on the crop harvested.

"Our chief reason for continuing in business is our ability as an organization in buying, cleaning, testing and marketing farm seeds," says the sales manager of this company. "Summing up that ability, it means control of quality in our product. Seeds are usually thought of as a raw product. We have taken them as a natural or raw product and made them a manufactured product, a specialty, if you will. But for many years before we began to advertise we sold them as a raw commodity without capitalizing in distributing them on what our scientists and machinery accomplish in the way of improvement.

"Our story of farm seed was told in detail for the first time about three years ago in a booklet. Some advertising in farm papers accompanied it. This booklet put our story in simple, understandable language but did not make the item of cleanness in seeds as graphic as our management believed it must be made.

"A year later we brought out a second booklet. Again by short narrative, charts and figures we struck at the economic fallacy of looking for high yields from seed containing a higher content of chaff, dirt and weeds than our seeds. But in this second booklet we used a new type of illustration—microscopic photographs. Comparisons between magnified photographs of our seed and other grades would be so understandable that no buyer could

*An article published in the *Printers Ink*.

February 15, 1928

miss their significance, I believed. They would cut straight through all the charts, figures and descriptions to the crux of the matter, and make the visualization of our quality inescapable."

Several pages of the booklet were, accordingly, used for these magnified photographs. Each page showed four photographs. For example there was a sample of Clover seed as it came from the hulling machine. A second showed this "country run" seed after it had been cleaned by ordinary methods with most of the coarse trash and many weed seeds removed. This was good seed. At least it looked good. A third photograph showed this seed after it had been re-cleaned making it fit to be sold under this manufacturer's trade mark. The final illustration showed what had been taken out in the re-cleaning process; various weed seeds and some good clover seed unavoidably lost.

The same process of showing the consumer graphically the importance of buying only clean seed is used again in this advertiser's newest booklet, a manual of 87 pages, which has been adopted as a supplemental textbook by 28 agricultural colleges. The company's dealers pay five cents a copy for this. They distribute it to their customers free with a postal enclosed on which the farmer can return information regarding his crop plans during the coming season. The booklet, now in its third edition, is reinforced by advertising in 19 farm papers and a long list of country newspapers. Most of this advertising centers about the dealer, the metal sign he displays and the brand on the bag in which the seeds are packed. Of course the dealer is urged to tie up with this by using newspaper space himself. As a further step toward dealer co-operation the company makes this suggestion to advertising managers of the newspapers on its list: "Dealers in your town will be selling our farm seeds this spring. Look them up; tell them when our ads will appear in your paper and suggest they 'cash in' by advertising in the same issues that they handle our farm seeds." That simple hint is producing a volume of tie-up advertising paid for by dealers that the company never experienced before.

In its booklets the company has gone rather exhaustively into the matter of showing the farmer why he should not be satisfied with less than the cleanest seed he can obtain. The booklet lines up the reasons for buying. But in its newspaper and farm-paper copy this manufacturer focuses on the dealer, the current booklet or manual; the metal identification sign furnished to the dealer and the branded bag in which the seeds are always packed. If the prospective buyer will ask for and read the manual, the company believes he will place himself in a frame of mind which makes finding his way to the dealer a thoroughly logical step.

So far what has this sales promotion and advertising accomplished? For three years now it has been going on, pushing out a little farther each year. In the first place, it needs to be emphasized that the company from the start believed its work would be wasted unless the advertising was utilized: 1, in the plant and branch offices; 2, by salesmen; and 3, by dealers.

"One of the most interesting results has occurred inside our plant," says the sales manager. "We can't always check up on what we believe to be actual results out in the territory but we can measure them at home. Two years ago our salesmen were back at the home office for their annual convention. At that time we took the opportunity to show them what we proposed to do in our advertising during the coming year. The head of one of our production departments heard about it and asked us to give the same explanation of the advertising to his men. So we assembled them and went over the same ground we had covered with the sales force.

"These production men were tremendously impressed. First, with the amount of money we were planning to spend for advertising. And secondly with their vital part in keeping our farm seed up to the quality standard. They agreed that they had a big job to do uncommonly well or our advertising investment would convert itself quickly into a liability.

"Before long we began to receive encouraging reports from salesmen and dealers. They were getting the best merchandise we had ever delivered, they told us. Now, as land grows older, weeds increase. The seed supply becomes poorer but we have found our product improving. Why? Because our cleaning departments are alive to the new importance of their jobs in turning out merchandise that measures up to our advertising. When the next sales convention rolled around our sales force invited the heads of our cleaning departments to be their guests at our annual sales dinner. Such an invitation would have been almost unthinkable a few years ago. The production men would not have accepted it then. Now they were proud to do so, when they realized it represented real appreciation on the part of the salesmen for their share in turning out higher grade merchandise. That is one result of our advertising.

"Another result relates to the salesmen them-

selves. They have stopped peddling and have caught the sales management point of view. Most of our men have been with the company for a good many years. Not all of them were easy to sell on the value of advertising. They wanted high quality in the merchandise and low prices. Persuading them was a matter of convincing a few at a time. Of course the example set by our production men helped. Advertising, we know now, is building up a background for the salesman that he is gradually beginning to appreciate. The result of this is better selling and selling that fits in to the management's plan as opposed to the kind that the individual feels suits him best.

"We have never had other than a loyal dealer organization. Yet some of them did not understand our motives in advertising to the farmer consumer. Our explanations of why we were advertising coupled with the character of the advertising itself and the dealer-help material we have sent them are changing this situation rapidly. Dealers are buying booklets from us in volume, a situation that would not exist, we believe, if they were not pretty thoroughly convinced of its worth. There are evidences that we are actually getting them to realize the possibilities of widening their selling activities to reach markets formerly looked on as out of their sphere.

"Don't assume from what I have said that we have no competition. There is plenty of it from the catalog and local houses. Our market doesn't flock to dealers insisting on our merchandise, but we are making appreciable sales advances. And even though we can't put an exact evaluation on our advertising we feel that it has made possible:

1. The starting of a trade-marked line. We feel that our trade-mark has acquired a definite value.
2. Increasing sales in our trade-marked items. These are becoming a more important part of our business each year.
3. Our inside organization is producing better results which are mirrored in the salesman's and dealer's ability to move our lines.
4. By-products of far-reaching importance, such as making it possible to introduce new items quickly and economically.
5. More enthusiastic sales and dealer organizations.

"Against these advantages we must enter the amount of our advertising expenditure which although it has been considerable, we look upon as a good investment. The advice that our advertising agency gave us when it said we had nothing to advertise was good counsel. We had nothing at that time. We had nothing until we looked at our merchandise from above, below and from every side. Would our seeds make the farmer's crop worth more to him? Why? How could we make graphic the reasons why they should be preferred? What will make the farmer appreciate and visualize the importance of re-cleaned seeds? What will predispose the farmer in our favor, that is, make it more possible for him to sell himself on our merchandise? It was not easy to dig out satisfactory answers to these questions. Possibly we have not answered all of them perfectly. But at least we have gone far enough to convince ourselves that 'nothing to advertise' is not an insurmountable obstacle for the manufacturer who has merit in his merchandise and the tenacity to keep at his analysis until the profitable way to advertise is found."

FLAXSEED FOR BANKERS

The Wall Street Journal editorializes as follows: Flaxseed production this year is officially estimated at 24,270,000 bushels, compared with 18,592,000 a year ago. This is of interest to Wall Street because, listed on the Exchange are the securities of companies whose business is directly connected with the crop. Also, as flaxseed touches the industrial life of the country in many ways, it indirectly affects Wall Street in more than one.

If any man asks how flaxseed, raised up in the northwest, can affect him in any indirect way, just let him put on his thinking cap for a few minutes. How would we get along without paint? We could do nicely without painted faces and lips, but how about unpainted houses or automobiles for instance? The function of paint is to preserve as well as to beautify. It is almost a fundamental necessity in civilization.

Then try to imagine getting along without newspapers, books and magazines. The publishing business alone employs about 250,000 persons without counting any of the other industries connected with it, such as the manufacture of paper and presses. From the time a child begins to learn the alphabet until old age printer's ink is a necessity for him.

Paint and printer's ink are sufficient to show our need for flaxseed without mentioning many other useful commodities, such as linoleum oilcloth and patent leather. Linseed oil enters into the making of all these and linseed oil is made from flaxseed. A ton of the seed will yield about 75 gallons of the oil.

After the oil has been pressed out for our industrial uses, flaxseed helps to feed us. The cake or meal from which the oil has been expressed is a valuable feed for livestock, especially for fattening beef cattle. So, when enjoying a juicy steak we may

be under obligations to some of that crop of flaxseed produced up in the northwest.

The industrial growth of which we are so fond of speaking is shown in the flaxseed consumption. Although we are the world's second largest producer, yet we are also the principal importer. We purchase abroad more flaxseed from which to make linseed oil than any other country in the world. That is saying a great deal because the leading countries of Europe are importing more now than before the war.

In the five years preceding the war our production averaged 19,500,000 bushels. Therefore, we are producing about 20 per cent, more now than then. That is but 55 per cent of what we need. In spite of a heavy tariff, production is far behind consumption. Luckily for us Argentina has more than doubled its production in the same period. This adds considerably to Argentina's export balance, while we, in a measure offset it by sending to Europe a part of the oil cake valued at \$13,000,000.

MASSACHUSETTS HAS NEW SEED LAB

Massachusetts has fallen in line with her sister in adopting a law regulating the sale of agricultural seeds. This law, which became effective November 1, 1927, necessitated the establishment of a seed testing laboratory for the examination of seeds in making purity analyses and germination tests. Since all seeds offered for sale must be correctly labeled to comply with the new labeling law, it is the privilege of any person residing within the state to submit samples of seeds to the laboratory for examination. A specified fee in accordance with the character of the service rendered is charged by the laboratory and all fees exacted for the making of tests and analyses are paid into the treasury of the commonwealth.

The seed laboratory is well equipped with seed testing apparatus as follows: Three large Minne-



MISS HOPKINS IN THE MASSACHUSETTS SEED TESTING LABORATORY

sota germinating chambers including attachments which provide for perfect control and temperature alternations, one being electrically heated, another having frigidare unit for cooling, and a third double capacity Minnesota daylight germinating chamber in which sand tests as well as belljar and tests by the Copenhagen method are conducted; a vertical air blast blower for separating chaff in making purity analyses of grasses and mixtures; a new analytical chainomatic balance with graduated notched beam; a torsion balance; and a set of grain scales; a Bausch & Lomb binocular; a Zeiss compound microscope; and Hasting's hand lenses of varying magnification; Boerner samplers for cereals and clovers; a Kny-scheerer mixer for grasses; sets of sieves, and other small tools indispensable to the seed analyst; as well as a library of reference books and periodicals on seeds, weeds, farm crops, and grasses.

The seed analyst in charge is Miss Elizabeth F. Hopkins, a graduate of Vassar College, who was employed for six years in the Department of Botany in the New York Agricultural Experiment Station in Geneva, N. Y., working with Professor Munn in the Seed Testing Laboratory.

MONTANA SEED IN BADGER STATE

The Wisconsin Department of Agriculture has issued a bulletin on Montana Alfalfa seed, which includes the following interesting information:

"For many years Montana common Alfalfa seed has been commanding a premium of two or more cents a pound over other common Alfalfa seed. This is because it is especially hardy and well suited to Wisconsin conditions. Experimental work with Alfalfa has now shown that Alfalfa seed from the Dakotas, Idaho and certain portions of Canada are equally hardy, but still the premium on Montana seed continues.

"Not only the hardy seed from the Dakotas, Idaho and Canada, but seed grown in states far-

(Continued on Page 527)



THE DAKOTAS

A motor, 15-ton scale and Strong-Scott Air Dump have been installed by James Carlon of Armour at Lake Andes, S. D.

The E. A. Brown Elevator at Garretson, S. D., is under the management of D. Vanderberg, who succeeds E. P. Ingelson.

A number of improvements have been made to the plant of the Bottineau Farmers Co-operative Elevator Company of Bottineau, N. D.

George P. Sexauer and son of Brookings have bought the Schultz Elevator at Rutland, S. D. V. R. Lee is now buyer for the elevator.

A five-horsepower motor has been installed on each leg of the Rockham Farmers Elevator Company of Rockham, S. D.; also one on the cleaner.

New coal sheds, new flour warehouse, new office and new testing room have been built for the Farmers Elevator & Mercantile Company of Lisbon, N. D.

A new building has been completed at Broadland, S. D., for the Broadland Equity Exchange and a 24-inch huller installed and two 25-horsepower motors.

SOUTHERN AND SOUTHWESTERN

A Tulsa, Okla., office has been opened for the Kimball Elevator Company by C. F. Evans.

The Jones & McLean Grain Company has leased a new warehouse at Hereford, Texas, and will operate it.

A new warehouse has been opened at Cartersville, Ga., by the Cartersville Grain & Produce Company.

The Ashley Elevator has been bought by the Farmers Co-operative Association operating at Alva, Okla.

The elevator of the Geis-Price Company at Enid, Okla., which burned, will probably be rebuilt by the company.

A new elevator of brick construction will be built for the San Angelo Grain Company of San Angelo, Texas.

The storage plant and coal sheds of the Zobisch Grain Company at Butler, Okla., are to be rebuilt. They burned recently.

The Childress Grain Company of Temple, Texas, has been bought by the Wendland Grain Company. R. E. Wendland is manager.

A general grain, hay and produce business is to be conducted at Savannah, Ga., by the recently incorporated J. C. Slater Company.

Early in February, the Winter-Loeb Grocery Company, one of the oldest grain and flour concerns of Montgomery, Ala., became a cash and carry store.

J. I. Rogers & Co., of Durham, N. C., have been incorporated, capitalized at \$50,000, to buy, sell and deal in grain and feedstuffs. E. A. Rogers and E. E. Rogers are interested.

To deal in grain, poultry supplies and seeds, J. E. Rogers, J. J. Gibson and W. R. Archer have incorporated as J. E. Rogers, Inc., at Houston, Texas. The capital stock of the new firm is \$100,000.

Smith & Robison, grain dealers of Sherman, Texas, operating plants at Gunter and Celina, have dissolved. G. F. Smith has bought the undivided half interest of W. A. Robinson the other member of the firm.

A new elevator is being built at Newport, Ark., for the Jackson County Gin & Milling Company. Additional feed equipment for poultry and dairy feed and cornmeal is being installed by Sprout, Waldron & Co.

To deal in grain, feed, etc., the H. B. McCall Industries, Inc., have been incorporated at Sanford, Fla., capitalized at \$25,000. H. B. McCall, Sr., and H. B. McCall, Jr., are interested in the new grain company.

The interests of Hugh Story in the West Texas Elevator & Grain Company of San Antonio, Texas, have been bought by Louis Hall and Vosberg Hall, and the name of the firm changed to the Hall Bros. Grain Company.

J. C. Whaley is building a grain elevator at Lubbock, Texas, which will be ready for operation this month. It cost \$150,000. The headhouse is 60 feet

high and the elevator proper 100 feet high. It is equipped with modern machinery, including facilities for drying and curing grain.

J. C. Ward succeeds Gilbert Bean as manager for the Lockney Coal & Grain Company of Lockney, Texas. Mr. Bean will have charge of the Thornton & Bean Grain Company at South Plains which has just erected a new elevator.

A \$35,000 feed mill, warehouse and elevator are being built at Hobart, Okla., for the Chickasha Cotton Oil Company of Chickasha, Okla. The capacity of the mill will be between 40,000 and 60,000 bushels. S. Barnes will be manager.

EASTERN

Plans are being made by J. B. Ham Company of Lewiston, Maine, for rebuilding the elevator which burned.

A new power grain shovel and another motor driven feed grinder have been installed at Portland, Maine, for the New England Grain Company.

The Marshall Grain Company, Inc., has been incorporated at Salem, Mass., capitalized at \$15,000. Charles H. Marshall of Beverly is president and treasurer of the firm.

A Pennsylvania charter has been granted the Anderson Grain & Feed Company of York, Pa. It is capitalized at \$150,000. J. T. Anderson is treasurer and manager.

Plin Morse, Inc., have incorporated at Randolph, Vt., to conduct a grain and feed business and grist mill. Plin Morse, Elizabeth A. Morse and Nelson N. Morse are interested.

Part of the interest of R. N. Hanna of Middle Garville, N. Y., in the grain and feed business, has been sold by him to Bernard McDonough who will conduct the business as the Bernard McDonough Company.

MINNESOTA AND WISCONSIN

Four electric motors have been installed for the Farmers Elevator Company of Kasson, Minn.

A. F. Schwartz is now manager of the Farm Bureau Elevator at Spring Green, Wis.

The Ward Implement Company at Truman, Minn., has been bought by the Farmers Elevator Company of Truman.

A drying plant is to be built at the Superior, Wis., elevator of the Cargill Elevator Company of Minneapolis, Minn.

Alfred Jacobson has been succeeded as manager of the Equity Elevator Company at Cokato, Minn., by Fred Swanberg.

The elevator and feed mill of the Spelz Grain & Coal Company at Clarks Grove, Minn., have been bought by Andrew B. Sorenson.

Capitalized at \$25,000, the Pfeiffer Elevator Company has been incorporated at Durand, Wis. F. G. Pfeiffer, E. W. Goodrich and J. C. Goodrich are interested in the firm.

Washington Klein, C. A. Schroeder and Windsor Hamlyn have incorporated as the West Bend Farmers Elevator Company of West Bend, Wis. The firm is capitalized at \$25,000.

A. R. Heagle, M. E. Heagle and F. G. Plecity have incorporated at Gilman, Wis., as the Gilman Lumber & Supply Company and will deal in grain, feed, seeds and lumber, capitalized at \$20,000.

ILLINOIS

The Farmers Grain Company of Harvel, Ill., has been dissolved.

The Duncan Grain Company of Modesto, Ill., has been reorganized.

The elevators of the Galligar Grain Company at Arlington, Ill., is to be enlarged.

The Farmers Grain Company of Granville, Ill., has installed a new 10-ton truck scale.

A warehouse has been completed at La Place, Ill., for the Co-operative Grain Company.

The Farmers State Bank of Bulpitt, Ill., has bought the Farmers Elevator at Kincaid, Ill.

A new scale has been installed in the main office at Delavan, Ill., of the Wayne-Culbertson Grain Company.

William Murray and his brother, Clifton, have entered the grain business at Pontiac, Ill., and have leased the grain elevator of the Rogers Grain Com-

pany. He was formerly in the grain elevator at Cayuga.

The coal handling facilities of the Plainfield Grain Company of Plainfield, Ill., have been improved.

Earl DeHaven is now with the Lamson Bros. at Quincy, Ill. He was formerly with the Atwater Elevator Company.

The grain brokerage business of E. S. Lyons at Colfax, Ill., has been bought by the E. F. Freeberg Company of Chicago.

The capital stock of the Woodland Farmers Co-operative Elevators at Woodland, Ill., has been increased from \$40,000 to \$75,000.

The oil engine at the property of the Browns Elevator Company at Albion, Ill., has been replaced with a 30-horsepower electric motor.

The office of the Atwood Grain & Supply Company at Atwood, Ill., has been equipped with complete grain testing and grading apparatus.

The Harry Allen Grain Company of Allerton, Ill., has installed a 10-ton Fairbanks Truck Scale in both of its elevators and a six-ton Fairbanks Scale in the corn crib.

The Fairmount Grain Company has been incorporated at Fairmount, Ill., capitalized at \$25,000. The incorporators are Z. A. Terry, A. H. Gunder and J. V. Lawson.

To deal in grain, flour and feed, Pink & Co., Cairo, Ill., have been incorporated, capitalized at \$25,000. T. M. Rennie, E. G. Pink and Laura R. Pink are interested.

The two large elevators of the grain firm of Taggart & Colehower at Wenona, Ill., have been equipped with the latest improved hydraulic dumps for handling loaded wagons and trucks.

IOWA

D. J. Peters of Wellsburg has bought the elevator of Fred Raient at Robertson, Iowa.

The A. K. Emrich Grain Company has opened a branch office at Valley Junction, Iowa.

A new corn cleaner has been installed by the Nebraska-Iowa Grain Company of Farragut, Iowa.

The elevator and lumber yards at Zaneta, Iowa, have been bought by the Piper Grain & Milling Company.

The elevator of D. J. Peters at Wellsburg, Iowa, has been bought by Tjaden & Dilly, grain and feed dealers.

The Goldfield Grain Company, Goldfield, Iowa, has been bought by W. R. Burt of Burt Grain Company, Clarion, Iowa.

The Salix Grain & Coal Company has been incorporated at Salix, Iowa, to conduct a feed and grain business. The firm is capitalized at \$10,000.

The Farmers Elevator Company of Martelle, Iowa, is under the management of Kenneth Gordon of North Liberty. J. H. Armstrong was formerly manager.

J. B. Spurgeon, A. F. Hoy and Frank Orton have filed articles of incorporation as the Farmers Grain Company, at Kennedy, Iowa. The firm is capitalized at \$20,000.

A fireproof addition has been built for the Whittemore Elevator Company of Whittemore, Iowa, and feed grinding machinery has been installed. D. W. Ault is manager.

The name of the Farmers Elevator Company of Cleghorn, Iowa, has been changed to the Farmers Co-operative Company. L. B. Darling is the new manager, succeeding S. H. Lassen.

The elevator of the Farmers Elevator Company at Ashton, Iowa, has been equipped with a 7½-horsepower motor which operates to run their three elevator legs jointly or independently.

INDIANA

Francis Finch is manager of the Farmers Grain Elevator at Veedersburg, Ind.

The Marshall (Ind.) Farmers Elevator Company has filed papers of dissolution.

The Morocco Grain Company of Morocco, Ind., has been reorganized as a corporation.

The grain business of the Ezra Stevens Corporation of New Harmony, Ind., has been discontinued.

G. A. Pritchard and George O. Rafert have bought

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the property of the Pendleton Elevator Company of Pendleton, Ind. The new owners will take possession immediately.

A new elevator of 20,000 bushels' capacity has been built at New Holland, Ind., replacing the one which burned.

Papers have been filed for the preliminary dissolution of the LaCrosse Grain & Coal Company of La Crosse, Ind.

The plant of Stiefel & Levy at Kimmell, Ind., has been equipped with electric power replacing the gas engine.

The elevator at Williamsport, Ind., has been bought by Maynard Robertson, who will take immediate possession.

The elevator of the Wheatland Grain Company of Wheatland, Ind., which burned, will either be rebuilt or the second house remodeled.

A number of improvements will be made during the coming season on the warehouse of Oscar M. Cook, grain and feed merchant of Boonville, Ind.

Alfred Johnson has secured the Hanson & Barzen Elevator at Newfolden, Minn., in trade for a 280-acre farm. The elevator has not been operated for over a year, but Mr. Johnson will operate it.

OHIO AND MICHIGAN

A new all-steel 10-auto truck scale has been installed by the Clare Elevator Company of Clare, Mich.

A new and modern office has been completed at Marlette, Mich., for the Decker Grain & Lumber Company.

A new 10-ton Fairbanks Morse Scale has been installed for the Nevada Farmers Grain Company of Nevada, Ohio.

O. L. Miner has resigned as manager of the Marine City Farmers Co-operative Elevator Company, Marine City, Mich.

Quincy G. Smith has succeeded his brother, I. C. Smith, as manager of the Clinton Grain Company of Wilmington, Ohio.

The Craig's Coal Yard & Elevator Company has installed at its elevator at West Liberty, Ohio, a Strong-Scott Pneumatic Dump.

The lumber yards of the Rockafellow Grain Company at Carson City, Mich., have been bought by the Carson City Grain Company.

The grain business of the Slocum Grain Company at Ewen, Mich., and the retail oil business has been bought by W. E. Helakoski.

The Lennon Elevator Company, Inc., has been incorporated at Lennon, Mich., capitalized at \$40,000. The firm will handle grain, builders supplies and farm produce.

Louis Schneider has been made manager of the east end Crites Elevator at Circleville, Ohio. Lawrence Warner, the former manager, has been transferred to the main elevator.

Ohio Seed Company of Wapakoneta, Ohio, has bought the site of the Gutman Grain Company's elevator at Gutman (Santa Fe p. o.), Ohio, which burned, and will build a new elevator on the site.

WESTERN

Walter Daniels succeeds Louis Stairrett as manager of the Grain Growers Warehouse Company at Wilbur, Wash.

A new structure costing \$125,000 is to be built at Los Angeles, Calif., for the Stanton Milling & Sales Company.

A fourth store has been opened at Encinitas, Calif., by Shancks & Son, grain and feed dealers of Oceanside, Calif.

The elevator of the Atwood Grain & Milling Company at Atwood, Colo., has been leased to the Sterling Milling Company.

A. D. Priest is succeeded as agent at Columbia Falls, Mont., for the Rocky Mountain Elevator Company by T. J. Sollom.

The Colby, Wash., branch of Galbraith & Co., has been bought by England & Peterson, feed merchants of Port Orchard.

A grain and feed business is to be conducted at San Francisco, Calif., by H. E. Woolner, former manager of the Great Western Milling Company of Los Angeles, Calif.

Big Bend Hardware Company of Odessa, Wash., has been taken over by the recently organized Odessa Trading Company. Will also deal in grain, feed, etc., at Batum, Wash.

The Nicholls Grain & Milling Company, Los Angeles, Calif., is undergoing reorganization and the proceeds from the assessment of \$5 per share on the capital stock of the firm will be used to liquidate current indebtedness. C. S. Cruikshank is president; O. B. Bell, vice-president; and C. C. Walk, secretary.

The Denver, Colo., elevator offices of the Colorado Milling & Elevator Company, have been transferred from the local terminal to the general offices of the firm. The offices of the Denver elevators

and the country line of 28 elevators will be operated under the supervision and direction of the Rocky Mountain Grain Company, the grain department of the Colorado Milling & Elevator Company.

MISSOURI, KANSAS AND NEBRASKA

A. A. May is now manager of the Producers Grain Elevator at Centralia, Mo.

A truck dump has been installed by the Farmers Elevator Company of Clarks, Neb.

The elevator of G. H. Strahm at Berwick, Kan., has been bought by Noah Edelman.

Harold Hearsthorpe has been elected manager of the Farmers Elevator at Mulvane, Kan.

The Shannon Grain Company is operating the elevator of Jennings & Roller at Rexford, Kan.

B. A. Parsons succeeds C. W. Lewis as manager of the Southwestern Elevator at Hardtner, Kan.

The elevator of R. S. Bandt at McDonald, Kan., has been bought by G. W. Roller of Wray, Colo.

Electric power has been installed in the elevator of the Farmers Elevator Company at Murray, Neb.

A new elevator is being built at a cost of \$10,000, for the Farmers Elevator Company at Virginia, Neb.

A truck lift has been installed in the elevator of the Holmquist Elevator Company of Rosalie, Neb.

Wm. S. Schwalm is manager of the Louisville (Neb.) Farmers Elevator Company, succeeding H. Haws.

The First National Bank of Crofton, Neb., has bought the elevator of the Farmers Grain & Stock Company.

Fred Mueller succeeds Ray Copenhaver as manager of the Farmers Elevator Company at Syracuse, Neb.

B. A. Smutz succeeds W. H. H. Leck as president of the Farmers Co-operative Elevator Company at Linn, Kan.

The yards of the Nye-Jenks Company at Beemer, Neb., have been bought by William T. Fried, grain and coal dealer.

Application has been filed by W. E. Pierson Flour & Fuel Company, Osceola, Neb., to operate a grain warehouse there.

Corn shelling equipment has been installed in one of the elevators of the Crittenden Grain Company of Rulo, Neb.

The Brooklyn Street Elevator at St. Louis, Mo., owned by the Plant Flour Mills Company, has been made regular.

Herman Hawes has been made manager of the elevator of the Farmers Grain Company at Manley, Neb., succeeding D. D. Brann.

C. E. Benson has been made manager of the Clarence Grain Company of Clarence, Mo., succeeding B. E. Rule, who resigned.

Several improvements are to be made during the coming year to the property of the Farmers Elevator Company of Doniphan, Neb.

The elevator of the Fields-Brown Elevator Company at Belden, Neb., has been repaired. Wm. Reising is in charge of the elevator.

Wm. Stewart and B. B. Schooler have incorporated as the Fairfax Grain Company of Fairfax, Mo. The firm is capitalized at \$11,000.

The grain and feed business of Pickett & Pickett of Stewartville, Mo., has been bought by the Osborn Elevator Company of Osborn, Mo.

G. E. Vining of Hubbell has leased the elevator of F. M. Saum at Bennet, Neb. Mr. Saum was obliged to retire because of poor health.

Fred Fuller has resigned as traffic manager of the E. L. Rickel Grain Company of Salina, Kan. He will make his home at San Jose, Calif.

B. J. Myer is now in charge of the Farmers Elevator at Furley, Man. He was formerly with the Kansas Flour Mills at Garden Plain, Kan.

W. H. Mikesell has sold the elevator at Rydal, Kan., which he has owned and operated for the past 15 years, to G. C. Dooley of Belleville.

The Farmers Co-operative Elevator Company has leased for a period of three years, the elevator of the Hannibal Milling Company at Elsberry, Mo.

Claude Ferguson has resigned as manager of the Farmers Elevator at Bunceton, Mo., and after March 1 will be manager of the Farmers Elevator at Tipton.

A new corn cutter and grader with capacity of from 3,000 to 4,000 pounds of corn an hour has been installed by the Baber Grain Company of Salina, Kan.

The Albion Elevator & Lumber Company, successors to the Albion Elevator Company, has opened its elevator at Albion, Neb., with Herman Hanne-man in charge.

George C. Eicher is now manager of the plant of the Sheets Elevator Company at Nebraska City, Neb., which it bought from the Great Western

Cereal Company. He is succeeded at Toledo where he was manager for the same company by A. C. Hoffman, traffic manager. The headquarters of the firm are at Cleveland, Ohio.

A number of repairs have been made to the plant of the Farmers Co-operative Grain, Coal & Supply Company of Haggard, Kan. A. C. Woodruff is manager.

The elevator of Albert Dunning at Shelby, Neb., has been leased to the Dawson Grain Company of Omaha, and George Blevins, Jr., who have taken over the elevator.

The Independence, Kan., office of the B. C. Christopher Grain Company is now under the management of M. T. Hetzman. He succeeds W. E. Call, who resigned.

A modern elevator is to be built at Blue Hill, Neb., for the Farmers Union Co-operative Association. Work will be started as soon after March 1 as weather permits.

The 275,000-bushel elevator of the Chicago & Alton Railroad at Kansas City, Mo., may be enlarged. If expansion is decided upon, a 275,000-bushel house will be built.

The lumber and coal yards of the Nye & Jenks Company at Fremont, Neb., have been sold to W. T. Fried, who will operate independently in the lumber, coal and grain business.

James Middleton has been transferred from the Washington, Neb., elevator of the Nye-Jenks Company to Woolstock, Iowa. Mr. Worth of Schuyler will have charge of the Washington house.

John C. Kramer is now associated with the Dickhut Grain Company of Pratt, Kan. W. M. Patterson of Pratt succeeds Mr. Kramer as manager of the Benton Grain Company at Liberal, Kan.

L. A. Coons, manager of the Trousdale Co-operative Exchange, has bought the elevator at Hope-well, Kan., formerly known as the Hopewell Equity Exchange. It will be operated as the L. A. Coons Grain Company.

CANADA

A 2,000,000-bushel elevator is to be built on Georgian Bay at Collingwood, Ont.

The Canada Malting Company of Toronto, Ont., is to build a 750,000-bushel elevator on the harbor front.

The Alberta Wheat Pool has leased for a five-year period the terminal elevator at Prince Rupert, B. C. Its present lease expires this summer.

It is said that the elevator of the Red River Grain Company at St. Boniface, Man., has been bought by the Manitoba Grain Company for \$60,000.

Randall, Gee & Mitchell, grain merchants of Winnipeg and Vancouver, will build a 750,000-bushel elevator. O. D. Howe of Port Arthur designed the house.

The Searle Terminal, Ltd., is building a 3,000,000-bushel elevator at Ft. William, Ont. The work house will have a capacity of 225,000 bushels and this and the 60 tanks will be of concrete construction.

The Dominion Malting Company, Ltd., Transcona, a suburb of Winnipeg, has secured a 21-year lease on the Canadian National Railway Company's 1,500,000-bushel elevator. The daily capacity will be 3,500 bushels.

It is expected that the new plant of the Dominion Malting Company at Winnipeg, Man., will be completed in April at a cost of \$800,000. The 500,000-bushel elevator of the Canadian National Railways has been secured for 21 years and adjoins the new plant. The yearly milling capacity will be 1,500,000 bushels barley. J. H. Pank is superintendent of the plant.

FIRES

Askov, Minn.—Fire destroyed the feed store of A. Henriksen.

Crawford, Neb.—Fire destroyed the grain elevator located at this place.

Richland, Kan.—Fire damaged the Farmers Exchange Elevator with a loss of \$7,000.

McBain, Mich.—Fire destroyed on January 6 the elevator of the McBain Grain Company.

Hutchinson, Kan.—Damage was done by fire to the feed warehouse of the Kellogg Bros.

Hamburg, Iowa.—Fire destroyed the elevator of F. J. Sullivan, with a loss of \$3,000 to building.

Bemidji, Minn.—The contents in the McTaggart Feed Store were damaged by fire on December 31.

Kirwin, Kan.—Fire of unknown origin destroyed the office building of C. M. Alspach on January 30.

Milwaukee, Wis.—Part of the seven-story plant of the Froedtert Grain & Malting Company was

damaged to the extent of \$10,000 by fire. The fire was confined to a single room.

Omaha, Neb.—Fire destroyed the Kirchner Elevator. Fire started from a defective electric switch.

Woburn, Mass.—Fire on January 14 damaged the property of Jaquith & Co., grain, feed and flour dealers.

Georgetown, Texas.—The contents of the grain warehouse of the Belford Lumber Company was destroyed by fire.

Ogden, Utah.—The store of Parley C. Richardson, hay, grain and feed dealers, was damaged by fire on January 14.

Georgetown, Texas.—The contents of the grain warehouse of the Belford Lumber Company were destroyed by fire.

Karns Spur (Geary p. o.), Okla.—The elevator of the Karns Spur Grain Company was destroyed by fire on February 7.

Van Buren, Ark.—Fire destroyed the feed and hay storage rooms of A. W. Tate & Sons at this place on February 1.

Moultrie, Ga.—Fire destroyed a warehouse of the Moultrie Mill & Elevator Company. The main plant was not touched.

Glenwood, Alta.—Fire destroyed the elevator of the Alberta Pacific Grain Company with 2,300 bushels grain on January 10.

Bozeman, Mont.—The office building of J. R. Swift was slightly damaged by fire which originated from a defective chimney.

Altamont, N. Y.—Fire destroyed the property of the Fort Orange Feed Company, operated by Barber & Bennett of Altamont, N. Y., with a loss of

\$55,000. A large stock of grain and feed were on hand. The warehouse was not damaged.

Montrose, S. D.—Fire destroyed the property of the Co-operative Farm & Grain Company. Loss was \$2,500, covered by insurance.

Holland, Man.—Fire destroyed the Manitoba Wheat Pool Elevator which was filled with grain on January 27. The loss was \$50,000.

St. Louis, Mo.—Fire damaged the hay and grain store in the building of the Cass Avenue Coal & Feed Company. The loss amounted to \$3,500.

Chicago, Ill.—The corn drying room of the Norris Grain Company on February 1 was damaged by fire. About 10,000 bushels of corn were destroyed.

Chappell, Neb.—The Farmers Elevator Company sustained a small loss by fire on January 14, the cause of the blaze being attributed to a worn bearing.

Butler, Okla.—The old elevator of the Zobisch Grain Company was destroyed by fire on January 27. The new elevator was damaged to some extent.

Washington, D. C.—Fire damaged the plant of the H. P. Pillsbury Feed & Coal Company on January 14. Several other pieces of property were damaged at the same time.

Ohio City, Ohio.—Fire destroyed the elevator of the Krugs Grain Company. The fire was of undetermined origin. The loss was \$25,000. A series of dust explosions caused the flames to shoot high into the air.

Chicago, Ill.—Fire destroyed the three-story store-room and 12 silos at the Hayford Grain Elevator with damages of between \$150,000 and \$200,000. The elevator is owned by the John E. Bastien Grain Company of 309 S. La Salle St., Chicago.

HAY, STRAW AND FEED

A feed store has been opened at Mission, Texas, by J. B. Hester.

A feed grinder has been installed at Friona, Texas, by J. E. Ware.

A feed store has been opened at Sulphur Springs, Ark., by Tom Maddox.

A feed business has been opened at Medford, Minn., by John Reiners.

A general feed store has been opened at Knox, Ind., by F. H. Moreland.

The Redding Feed Company of Redwood City, Calif., has been dissolved.

A feed store has been opened at Arnott, Wis., by John E. Kocziczowski.

A feed grinder is to be installed in the Farmers Elevator at Aredale, Iowa.

A feed store and mill have been opened at Marlin, Texas, for O. H. Miles.

A feed and seed store has been opened at Marianna, Fla., by J. E. Cabler.

The feed business of R. O. Field at Osseo, Wis., has been discontinued by him.

L. E. Hancock & Son have bought the Guin's Feed Store at Cushing, Okla.

The Northwest Feed & Supply Company of Portland, Ore., has been dissolved.

D. E. Hoey & Sons have built a new feed mill at Dexter, Mich., near their elevator.

A general line of feedstuffs will be handled at Festus, Mo., by the Ivory Feed Store.

A grocery and feed store has been opened at Mahanomen, Minn., by T. H. Blanchard.

A feed grinder has been installed for the Farmers Elevator Company of Franklin, Ky.

The Peter & Neeb Elevator at Barney, N. D., has been equipped with a modern feed mill.

A new feed mixer has been installed in the J. C. Cole & Son Elevator at Greenville, Ohio.

Heller & Morsen have sold their feed business at Norwalk, Wis., to James Betthausen.

A feed grinder has been installed by the Davis Coal & Feed Company of Coldwater, Mich.

The West Side Cash Feed Store of Redding, Calif., has been opened by William Schultes.

J. C. Kerr and F. R. Lindsey have incorporated at Kansas City, Mo., as the Kerr Hay Company.

The Monroe Feed & Seed Store at Mount Vernon, Ind., has been bought by A. C. Wilson & Son.

A new feed mill is being installed for the Farmers Co-operative Association operating at Williamsfield, Ill.

To deal in feed, Bennett, Denison, Clayton & Co., Inc., were incorporated at Prospect Plains, N. J.,

capitalized at \$125,000. Samuel E. Bennett, William T. Denison, Bertram S. Clayton and Fred W. Heidinger are interested.

The new quarters of the Nogales Feed & Seed Company of Nogales, Ariz., have been completed.

The coal and feed business of W. A. Williams at Marshall, Ind., has been bought by Percy Stanfield.

The Farmers Co-operative Exchange has bought the feed business of the Page Bros., at Bangor, Wis.

The Farmers Feed Company of Greensburg, Ky., has been bought by Virgil Coakley of Campbells-ville.

Papers of preliminary dissolution have been filed by the Citizens Feed Company located at Indianapolis, Ind.

A feed mill has been installed by John Stadler, who operates a feed store at Morrison (Greenleaf p. o.), Wis.

A feed grinder, corn sheller and cob crusher have been installed for the Hart Co-operative Company of Hart, Mich.

The feed business of R. J. Anderson at Dawson, Texas, has been bought by the Jarvis Grain Company of Hubbard.

The feed business of L. S. Ellenburg at Belle Plaine, Kan., has been sold to the Teagarden Mercantile Company.

The feed and coal business of Will Kiser at Merriam, Kan., has been sold to Gus Palmer, who has taken possession.

The stock of the Winchester Feed & Supply Company of Winchester, Ky., has been bought by W. H. Brock & Co.

A new ball bearing cutter and automatic grinder have been installed by the Fuller-Holway Company of Augusta, Maine.

The feed business of E. N. Jacobson & Sons at Fenwood, Wis., has been taken over by the Fenwood Commission House.

A building has been leased by the Bacon Electric Company at Chillicothe, Ill., and will be used as a feed store and warehouse.

The business of the Delmar Feed Company at Delmar, N. Y., has been sold to D. R. Boynton, who will conduct it as a retail store.

The American Feed Products Company, Inc., has been chartered at Baltimore, Md., with offices at 12 Stock Exchange Building.

The interest of Parker Darnold in the Checkered Front Grocery & Feed Store, Dewey, Okla., has been bought by Ernest Holt.

The Fairchild Feed & Elevator Company at Kinsley, Kan., is succeeded by the Fairchild Feed Company. The change is in name only and S. J.

Fairchild, the owner, has installed equipment for the manufacture of a line of mixed feeds.

Alfalfa meal is now being manufactured by the Johnson-Olson Grain Company, grain and feed dealers of Minneapolis, Minn.

The feed store and warehouse at Willamina, Ore., have been leased by Willis Rowel who will handle feed, grain, hay, chick feeds, etc.

The stock interest of J. A. Silvers in the Southern Feed Company at Springfield, Mo., has been bought by Paul Warner and Paul Vandiver.

An addition is being built to the warehouse of M. W. Cobbs of Wynne, Ark., which will enable him to take on a line of mill feeds and flour.

A general line of feed and coal is to be handled by the Farmers Supply Company recently organized at Danville, Ky., by W. B. Coleman and Jephtha Jett.

The headquarters of the Lewis Feed & Egg Association have been moved from Raymond, Wash., to Menlo. Vern Schwartz will be retained as local manager.

The name of the business of R. G. Phares at Grandfield, Okla., has been changed from the Merit Feed & Coal Company to the Phares Feed & Fuel Company.

Business has been started at Arcadia, Ind., by the Arcadia Feed & Seed Company in the former location of the R. W. Myers & Son Feed & Seed Company.

Sanford Rouse is now a partner in the firm of San Dimas Feed & Fuel Company of San Dimas, Calif. Mr. Rouse has been with the company for some time.

W. H. Poole, Jr., and W. L. Roberts have formed the partnership known as Poole & Roberts, Inc., at Selma, N. C., and will conduct a general line of feeds, etc.

A feed store and warehouse have been opened at Augusta, Ga., by the Reel Feed Company of which J. B. Reel is owner. T. C. Quarles will be associated with him.

The produce and feed store at Gridley, Kan., has been bought by Edward Johnson from E. H. Kaufman who will retain his elevator business and handle feeds there.

The Colby Feed Store at Colby, Wash., has been bought from Galbraith & Co. by England & Peterson. This firm now has branches at Vashon, Port Orchard, Harper and Colby.

The Wilkins Feed Company at Jesup, Ga., has been taken over by the Harper's Feed & Produce Company which was recently organized by George W. Harper and J. E. Harper.

The Hialeah Feed & Supply Company has opened a new feed store at Hialeah, Fla., in which they will specialize in all kinds of dairy and poultry feeds and poultry remedies.

A branch feed store has been opened at Melrose, Wis., by S. H. Van Gorden & Son of Black River Falls, Wis. It will be operated on a strictly cash basis. William Fillness is manager.

The coal and feed department of the Sexton Manufacturing Company at Fairfield, Ill., has been taken over by C. E. Keith & Co. They will operate as the Sexton Feed & Coal Company.

The former R. W. Myers & Son Feed & Seed Company at Noblesville, Ind., has been opened for business by the Arcadia Feed & Seed Company under the management of D. W. Terrill.

The Alfalfa meal mill formerly operated by Somers & Co., at Gerber, Calif., has been bought by Russell & Macauley, grain and hay dealers. The 2,000-sack daily plant will be reconditioned.

To deal in feed products, the American Feed Products Company, Inc., has been incorporated at Baltimore, Md. Charles R. Robertson, William Rasmsen and Howard S. Kroh are interested.

A large feed store has been built at Elsiecoal, Ky., by the Frazier Bros., in which they will conduct a wholesale and retail business. R. N. Frazier is the head of the company which is capitalized at \$25,000.

The Canby (Ore.) Feed & Supply Company has been bought from Wood & Silverthorne by B. M. Randall & Son of Molalla. They will continue it in connection with their feed stores at Molalla and Clatskanie.

A 24-inch huller and corn crusher and sheller have been installed for the Farmers Elevator Company of Grand Forks, N. D. The power is furnished by two 25-horsepower completely enclosed electric motors.

The Wayne Feed Mills, Inc., have been incorporated at Fort Wayne, Ind., capitalized at \$100,000. D. W. McMillen, H. D. Egly, A. G. Phillips, T. L. McGee, H. W. McMillen, S. W. McMillen and J. F. Kine are interested.

The name of the Bridge & Souter Company, Inc., Canastota, N. Y., has been changed to Smith-Canastota, Inc., with J. Fenn Smith, president. The old company was organized 40 years ago. Mr. Bridge died about 15 years ago, and Mr. Souter is

no longer interested in the firm. No change is made in the management. A. R. Smith has charge of the hay department.

The feed and shipping yard at Milford, Neb., formerly owned and operated by H. J. Jarrett, has been bought by J. E. Findlay. Mr. Jarrett will continue to operate the grain elevator and handle the Purina line of feeds.

To deal in feeds, grain and field seeds, the Staff-O-Life Feed Company has been incorporated at Dyersburg, Tenn. Q. D. Edwards and C. C. Bellew are interested and associated with them will be L. H. Cooley, dairy specialist.

Regular weekly radio programs are being put on by Park & Pollard, Boston, Mass., grain and feed merchants, from Stations WBZ and WBZA with a musical program known as the Park & Pollard Pioneers. This will be a Thursday night feature, between 7:30 and 8:00 p. m. eastern standard time.

Thomas P. Gaines, a feed merchant of Sherburne, N. Y., has incorporated as Thomas P. Gaines & Sons, Inc., capitalized at \$150,000. Mr. Gaines has been at Sherburne for 15 years and has a branch mill at Poolville, N. Y. With him are associated: Ray Gaines, vice-president; Archibald Conley, secretary; and Clarence Gaines, treasurer.

The Archer-Daniels-Midland Company of Minneapolis, Minn., now controls the William O. Goodrich Company of Milwaukee, Wis. The transfer was made on February 1. The Goodrich Company will continue to operate under the direction of the same personnel. Whitney H. Eastman is vice-president and general manager of the old company.

(Ill.) Grain Company, following the death of his brother-in-law in 1901.

HULL.—John Hull died at his home in Fountain City, Ind., on February 8. He for years had a grain elevator there.

McEVOY.—R. H. McEvoy died aged 76 years. He was vice-president of the Baker Nursery & Seed Company of Fond du Lac, Wis.

MILLER.—Lloyd A. Miller was killed in an accident near Wilmington, Del., on January 18. He was a grain merchant of Calcium, Pa.

MYERS.—Henry W. Myers died on January 8 at Bennington, Vt. He was a grain dealer and president of H. W. Myers & Son, Inc.

POWER.—John Power, a grain and stock dealer of Humboldt, Neb., died from pneumonia.

RAGON.—G. W. Ragon died at Upper Sandusky, Ohio. He was for several years in the grain business in Kansas. He was 86 years old.

RYAN.—Thomas M. Ryan died on February 2 at Buffalo, N. Y. He was an old timer in the milling, grain and shipping circles. He founded the Ryan Elevator at Black Rock, N. Y., and later owned and operated the Bennett & Richmond Elevators, Buffalo, N. Y. He was general superintendent of the Erie Canal Elevators for a number of years.

SAUMS.—Charles W. Saums died from pneu-

monia at Baltimore, Md. He was chief clerk in the railroad grain elevator office of the Pennsylvania Lines.

SCOFIELD.—A. P. Scofield was killed in an automobile accident. He was for years operator of a feed and seed store at Council Bluffs, Iowa.

SMITH.—William Maxwell Smith died on December 12 at Deroche, B. C., Canada. He was in the feed business at Park River for some time.

STEWART.—Eli M. Stewart, manager of the elevator at Cameron, Mo., died recently.

STEWART.—S. S. Stewart, owner of the Mott (N. D.) Mill & Elevator Company, died recently.

WALLACE.—Robert N. Wallace died at Frankfort, Ind., from a paralytic stroke. He was for years owner and manager of a grain elevator there. His widow and one daughter survive him.

WALKER.—W. C. Walker died at Nashville, Tenn., aged 47 years. He was formerly in the grain business there.

WASMER.—Charles Wasmer died on January 5 at Grand Island, Neb. He was 81 years old and at one time had been in the grain elevator business in Nebraska.

WILKES.—Sam C. Wilkes died recently at Nashville, Tenn. He was until recently a member of the grain firm of S. C. Wilkes & Co.

OBITUARY

APPLEBAUM.—Edward Applebaum was killed in an automobile accident. He was owner of the Independent Fuel & Feed Company of St. Paul, Minn.

ATWATER.—J. Lafayette Atwater was killed by train. He was part owner of Atwater Grain Elevator at Adrian, Ill.

BARNES.—Faulkner Barnes died last year. He was president of the Carrollton Farmers Elevator Company of Carrollton, Ill.

BEARDSLEY.—E. A. Beardsley died on February 9 at Omaha, Neb. He was formerly secretary of the Merriam Millard Company.

BEERY.—Charles Beery died at Belpre, Kan. He was a director of the Farmers Grain Company there for 19 years.

BLOCH.—Marx Bloch died aged 78 years at New Orleans, La. He was a member of the New Orleans Board of Trade and a retired rice dealer.

DICKINSON.—Martin M. Dickinson died at Abita Springs, La. He was a retired grain dealer of New Orleans, La.

ERLANGER.—John Erlanger died aged 62 years. He was a pioneer grain and produce broker of San Francisco and Stockton, Calif.

GAMSKY.—Jacob J. Gamsky died recently. For a number of years he conducted a retail feed business at Menasha, Wis.

GODEL.—William Godel died after a long illness. He was operator of a grain elevator near Wilmington, Ill., until a year ago. His widow and daughter survive him.

GREEN.—John A. Green, at one time prominently identified with the grain business at Nashville, Tenn., died recently at Memphis, Tenn.

HALL.—Charles Hurd Hall died at Peoria, Ill. He was active in the management of the Easton

FIELD SEEDS

(Continued from Page 523)

ther south can be substituted for Montana or mixed with it and no one be able to detect it.

"In order to safeguard Wisconsin farmers who wish to buy the hardy Montana seed this department has entered into a co-operative arrangement with the State Department of Agriculture of Montana by which it notifies the Wisconsin Department of Agriculture of every carload of common Alfalfa seed shipped to this state. The Montana Department has on file affidavits covering every lot of seed in every car of common seed shipped to this state. It notifies this division of every car shipped, giving the car number, the numbers of the seals on the car doors, and the railroad over which it is to be shipped.

"The car is met by an inspector at Milwaukee, Madison, or any other city to which the seed is shipped. The seals on the car are broken open and the car of seed unloaded, recleaned if necessary, resacked, sealed and labeled under the supervision of a Wisconsin inspector. Into each sack goes a label telling how the seed has been handled through this co-operative arrangement.

"By this arrangement Wisconsin farmers get genuine Montana seed when they pay for it, providing they insist on seeing the labels. So far this year 160,000 pounds of common Montana seed has been handled this way for Milwaukee seedsmen."

NEW YORK SEED PRICES SAG

By C. K. TRAFTON

During the greater part of the period under review a virtual dead-lock existed between buyers and sellers of field and grass seeds in the New York territory. Neither side displayed willingness to make concessions in order to do business. In some quarters it was considered possible that spring demand might be more active than usual as the favorable weather which prevailed last fall

over wide areas enabled farmers to do more than usual in the way of preparing the land for spring sowing. Hopes of a good demand were also based on the fact that prices for many varieties are from 2½ to 11½ cents lower than those current a year ago. Hence it was assumed that some shrewd buyers might take advantage of this conditions to come into the market somewhat in advance. However, these hopes have not been realized up to the present time and unseasonable weather is given as the principal reason, the climatic conditions prevailing in many sections not being conducive to an early demand for seeds. It was stated in explanation that farmers were waiting for a spell of cold and wintry weather, and especially a heavy and general snow-fall to put the soil in favorable sowing condition before considering the matter of covering their seed requirements.

Red Clover, which is expected to assume the leadership in opening the new spring season, was generally mentioned as the most disappointing item practically throughout the month. Nevertheless, sellers adhered firmly to their old quotations for several weeks owing to the light supply, especially of imported seed, leading to fears in some quarters that an actual shortage might develop before all of the spring demand is satisfied. While it was admitted that the country's supply of domestic seed was larger than last year's, it was asserted that this would be more than offset by a much larger consumption owing to the fact that the price is about 7 cents lower than a year ago. As far as imported Clover was concerned it was pointed out that only about 356,700 pounds had arrived from July 1 to December 31, compared with 2,111,300 in 1926 and 4,498,000 in 1925. Hopes were expressed that arrivals might become larger in the near future owing to the fact that some European shippers were offering at 20 cents c.i.f. compared with 21@22½ cents previously. Nevertheless, total imports for the month were only about 5,180 bags

CHAPMAN'S Red Top

MEAT SCRAPS - - 50% PROTEIN

Digester Tankage - - 60% Protein—Great Specialty

SIDELINES FOR ELEVATORS

Special Odorless Bone Meal—Salt

RAW BONE MEAL — CALCIUM CARBONATE

Write or Wire

RIVERDALE PRODUCTS CO.

Offices: 105 West Adams Street, Chicago



60% Protein

compared with about 5,460 for the preceding month. Toward the end of the month the spot basis was lowered a half-cent, bringing domestic seed down to 32 cents and imported to 25 cents duty-paid. The slightly better inquiry which then developed was confined almost wholly to the domestic variety.

White Clover remained nominally unchanged at 25 cents throughout the month. Buyers held off in expectation of lower prices because of the larger crop, but holders remained firm owing to the smaller carry-over and expectations that receipts of foreign seed for the season will be much smaller than last year's record total, although the quantity received thus far is slightly larger than for the same period a year ago. Arrivals for the month were about 1,210 bags, or about 100 less than during the preceding month. The fact that domestic prices averaged over 5 cents lower than at this

time last year encouraged hopes of a heavier consumption.

Timothy at 5 cents is $\frac{1}{4}$ cents lower than a month ago. In fact, the basis for export was as low as $4\frac{3}{4}$ cents at one time, resulting in a temporary flurry of foreign buying in this item. However, the exports for the month were only about 4,510 bags, against about 17,820 bags for the previous month. Domestic buyers are holding off because of the much larger crop, but holders believe that this is partly offset by the fact that prices average close to 2 cents lower and also by the much heavier exports.

BADGER STATE SEED NEWS

By C. O. SKINROOD

The chief point in the seed trade of Wisconsin and the Northwest in the first half of February is the report of very extensive winter killing. Seedsmen are all discussing this striking development of the season. However, the actual proof of winter killing can not be obtained until the growing season opens up and the fields refuse to germinate.

Milwaukee seed handlers declare that seed buying is rather light for this season of the year. Demand is largely negligible. There are few inquiries coming right now from the various sections of the Northwest.

The supply of Red Clover is not large, the seed handlers of Milwaukee report. Most of the seed seems to have left first hands. On the other hand, no one seems to be buying Red Clover seed right now. So that there is no scarcity evident from the small offerings. Price conditions are no firmer than a month ago.

The Timothy supply seems to have been exported to a large extent, the local dealers say, so that there are no pressing surpluses hanging over the market. The demand for Timothy seed is only fair.

Sweet Clover, the Milwaukee handlers report, is probably more in demand right at this moment than any other class of seeds. The supply is pretty well cleaned up. There are no surplus offerings available. The buying is said to be based largely on the cheapness of this class of seeds, this being the lowest priced of all varieties. It is anticipated that the buying of Sweet Clover will be exceptionally good all season.

The White Clover trade is largely nominal. Quotations are seldom made and the call for the seed at the present time is almost negligible in volume.

Milwaukee seedsmen still declare that there will be a great shortage in seed corn despite the fact that the market for this corn is still a little quiet. Tests made by the seed dealers here indicate that the germination qualities of seed corn this season may be even better than expected, these tests showing 90 per cent of the corn good and higher. This is equivalent to the usual tests when seed corn conditions have been normal.

One of the most important announcements in the seed trade of Milwaukee for many years was that the William C. Goodrich Company, leading Wisconsin manufacturer of linseed products, and founded in 1875, had been merged with the Archer-Daniels-Midlands Company of Minneapolis. The announcement came from Shreve M. Archer, president of the Minneapolis concern and also from W. O. Goodrich at the Milwaukee end of the deal. It was stated that about \$2,000,000 was involved in the deal. The transaction, Mr. Goodrich stated, was not a complete sale of the plant, but a consolidation effected through stock exchange. Mr. Goodrich did not state just what the share arrangement was. The plant at Thirtieth Street and Hopkins Road will continue to operate with Mr. Goodrich as the head and the company will be a subsidiary of the Minneapolis company.

Prof. R. A. Moore of the Department of Agriculture of the University of Wisconsin declares that

When "SEEDY"

Try

C. A. King & Co.

GRAIN AND SEED DEALERS

Toledo, Ohio

Like Billy Sunday, we deal in both cash and futures, Toledo and Chicago
Born 1846 Read Our Boy Solomon

SEED CORN

Grown in the greatest corn growing section of the United States—

Southwestern Iowa

Write for Prices and Samples

COUNCIL BLUFFS SEED COMPANY

COUNCIL BLUFFS, IOWA

BUY SEED CORN

GROWN IN EASTERN NEBRASKA

Our Seed Corn crops are grown from choice seed, carefully selected by experienced seed corn men who have been in our employ for many years.

WE DO NOT HANDLE ELEVATOR CORN FOR SEED

and our seed corn is far superior to elevator corn frequently offered and sold as seed corn.

Write or wire for special prices on kinds and quantities desired for spot shipment, also contract prices.

WESTERN SEED & IRRIGATION CO.

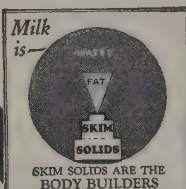
SEED SWEET & FIELD CORN
VINE SEEDS

Headquarters:
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Growing Station:
Rocky Ford, Colo.

DRY SKIM MILK in Baby Chick Feeds

Gives the
Best Form of
PROTEIN
MINERALS
LACTOSE



An average analysis shows

38% Protein—builds muscle and meat

8% minerals—builds strong bones

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Write for samples and information

AMERICAN DRY MILK INSTITUTE, Inc.

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Kewanee RENEWABLE Grain Spout



When a bottom wears out slip in a new one. The bottoms cost very little—8" size, and smaller only 37½c each.

Save the Cost of whole new spouts
ORDER ONE ON TRIAL. Give us the outside diameter, or outside rectangular measurement of your down spout, and length of spout wanted. We'll slip a Kewanee. Use it a month or 6 months. If not satisfactory return it and we'll refund your money.

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Quality Seeds
Will Increase
Your Profits

"M" BRAND Quality Seeds are all supervised and standardized by modern laboratory methods and thoroughly re-cleaned in our own plant—selected for purity, germination and of known origin. They are adapted to your conditions, tested and tagged to comply with your state seed laws.

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MERIT
FIELD SEED

Alfalfa	Timothy
Clovers	Grasses
Cowpeas	Soybeans
Seed Corn	Sunflower

Other Field and Grass Seeds

The advantageous location of our large and modern equipped plant with exceptional facilities for both shipping and receiving, enables us to quote best prices.

Whether Buying or Selling

Get our Prices—Prompt Service

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Wholesale Field and Grass
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ST. LOUIS, MISSOURI

COLORADO ALFALFA MEAL

All Grades and Grinds.
We specialize on Fine Ground for Poultry Mash.

Lamar Alfalfa Milling Co.
Lamar, Colorado

SEEDS BETTER SEEDS; BETTER CROPS
PRUNTY SEED & GRAIN CO.
9 South Main St. SAINT LOUIS

February 15, 1928

Wisconsin has one of the largest and finest collections of seeds this year that the state has ever grown. He stated that more than \$1,000,000 worth of seed would be listed in the first announcement of the college. This is in addition to large quantities of seed corn, seed oats and seed barley which has already passed into the hands of the seed houses.

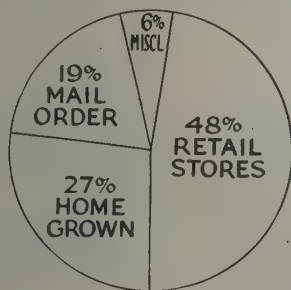
HOW TO INCREASE SEED PROFITS

By DILLON T. STEVENS*

Today we have a new kind of competition. It is not the same competition between firms in the same line of business. It is a competition between industries for the consumers' dollar and it is here that we seedsmen have fallen down.

Here are the net results of one study I have made:

With the co-operation of two excellent farm papers, 3,000 farmers were asked, by mail, to tell where they bought their seeds. Now, in analyzing the results of this, which I am about to present, keep these facts in mind: It is a fair assumption that more commercially handled seeds are



WHERE THE FARMERS BUY THEIR FIELD SEEDS

bought by the better class of farmers and by poor farmers; also that the farm papers are generally taken by the better class of farmers; further, that it is true that only unusually progressive farmers will take the trouble to answer a letter asking them more or less statistical questions. We received about 20 per cent of replies. This is what they showed:

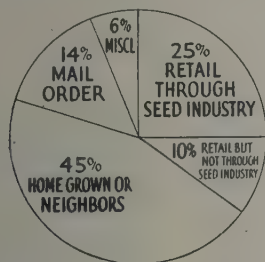
Forty-eight per cent mentioned retail stores as a source of seeds.

Nineteen per cent mentioned mail order seeds.

Twenty-seven per cent mentioned home grown.

Six per cent mentioned other.

Now, gentlemen, if we are selling through seed stores and retailers handling seeds and only reach-



HOW FARMERS PROBABLY BUY THEIR FIELD SEEDS

ing 48 per cent of the best and livest farmers, I feel safe in stating that seed stores are not handling over 35 per cent of all field seeds bought by farmers. Further, it is true that many of these small merchants are buying and reselling much seed that does not pass through our hands. We may be doing 25 per cent of our potential volume of business. Then, the truth is that we probably have a picture about like this:

Twenty-five per cent of field seed cleaned, handled, tested by the industry and sold through retail stores.

Ten per cent sold through retail stores but not treated or handled by seedsmen.

Fourteen per cent sold through mail order houses.

Forty-five per cent home grown or bought from neighbors.

Six per cent miscellaneous sources.

From this we can learn some great truths. Competing among ourselves, we are fighting for a share of 25 per cent of the potential market. And another great truth—that the farming public is only mildly convinced that our products will minister to its prosperity and happiness sufficiently to justify the expense.

The first of these we may lay aside. The battle is now being fought to the limit. We pay small salaries, our workers work hard, our financing is close, our margins are cut to the bone, and that's—that.

Now the second of these truths gives us much

*Excerpts from address given before the mid-winter meeting of the Farm Seed Association of North America on January 16.

food for thought. Assume that the 14 per cent who buy from mail order houses are well served, we still have 61 per cent of the potential sales field to be won.

Let us leave this thought now for a short time and look at some other facts. We conducted a research to find out why certain farmers did not buy from seedsmen. That is, we set out to find the objections in the public mind to our business. We find all the statements boil down to the following more or less concise reasons:

1. The farmer does not believe he can get better seeds from a seed house than he can select from his own or neighbor's crop.

2. He feels that the seedsman charges a large

(Continued on Page 530)

Miscellaneous Notices

WANTED

Man with \$10,000 to take half interest in manufacturing of stock feeds. CENTERVILLE FLOUR & FEED MILLING COMPANY, Centerville, S. D.

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Modern plant; housing 600 hens, 2400 chicks; pedigreed stock, fine strain; barn, 20 head of cattle. MAINE LAKES & COAST CO., Portland, Maine.

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Having decided to retire from the grain and stock business on account of other business interests requiring all of my time, I have decided to sell my elevators at Concordia and Aullville, Mo. Almost 50 years' established business and money makers. Located in best agriculture, dairy and poultry community in the state. Come and look the places over for you must see them to appreciate them. Not selling on account of financial difficulties, but too much work to look after all my interests. GEO. A. KLINGENBERG, Concordia, Mo.

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FOR SALE

Pulleys, 1,000; all sizes, solid cast iron, wood and steel split. Elevator belts and buckets and supplies. STANDARD MILL SUPPLY COMPANY, 501 Waldheim Building, Kansas City, Mo.

FOR SALE

One No. 5 Monitor Pea and Bean Cleaner. One two-ton Howe Floor Scale. One 20-h.p. Fairbanks-Morse Gas Engine. Also bucket elevator, shafting, pulleys and rubber belting. THE M. G. MADSON SEED COMPANY, Manitowoc, Wis.

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Full line of ear corn crushers, 30, 60 and 100 bushels' capacity, \$25 and up. Shellers, 100 and 200 bushels' capacity. Feed screens. Combined crusher and grinders, 30 and 50 bushels' capacity, \$23 and up. Bag holders and spout bag-clamps. L. F. PERRIN, Distributor, Box 375, Port Huron, Mich.

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White Blossom and Grundy County Sweet Clover. Bag lots or carloads. Various grades. Prices very attractive. FARGO SEED HOUSE, Fargo, N. D.

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profit for just handling and storing seeds.

3. He does not know about modern cleaning processes nor realize their importance.

4. He does not know of or believe that a seed house maintains seed experts, intent upon giving valuable service to him.

5. He is afraid he will get old seeds that have lost their germination.

6. He is afraid of introducing new and strange weeds and diseases.

7. He is afraid the bought seeds may not be as well suited to his locality as home seeds.

8. He thinks the price too high.

All of this, gentlemen, is the negative side of the farmer's mental attitude and must be met and honestly answered if we are to set up a positive belief in place of the present state of mind. Until we do bring about such a change, we must remain content with only a small portion of the farmers' seed buying dollars and that small portion given us only at the lowest price basis on which business can exist.

That, gentlemen, is our position. What we must attain is a wider market for our products and a better price.

Individually we have gone the limit, as I have pointed out; and progress does not lie along that

line. To get a larger share of the public's dollars, we must meet the new competition collectively through this association. In the words of that great patriot, "We must hang together or be hanged separately."

L. H. Wall has sold his seed business at Elberton, Ga., to O. E. Torrey.

A new building is to be erected at Shenandoah, Iowa, for the May Seed Company.

New cleaning machinery has been installed for the Fargo Seed House of Fargo, N. D.

W. L. Scott & Son have opened a store for handling field and garden seeds, flour, feed, etc., at New Albany, Ind.

Repairs have been made to the property of the Southern Seed Company of Little Rock, Ark., which was damaged by fire.

New quarters are now occupied by the Meyer Seed Company at Baltimore, Md. They have 10,600 square feet of warehousing space.

The John Seed Company of Grand Island, Neb., has been succeeded by the Platte Valley Seed Company, Inc. C. B. Turney is president.

The Monroe Seed & Feed Company of Mt. Ver-

non, Ind., has been sold to A. C. Wilson and his son, Arnold. The business was sold by J. M. Monroe whose son, Charles, has been operating the business for the last year.

Improvements may be made by Oscar A. Cook, retail seed dealer, to his warehouse at Boonville, Ind.

An interest in the Collin County Seed Company has been bought by G. C. Walters who is now associated with Carl Melton of McKinney, Texas.

J. D. Smith, Ben Spill and O. F. Turk have incorporated the Winters Pure Breed Seed Company of Winters, Texas. The capital stock is \$15,000.

A branch office and plant has been opened at Toledo, Ohio, by M. H. van den Berg of Cumberland, Md. The company handles field seeds, peas, beans, etc. Mr. van den Berg is also proprietor of the Monarch Buckwheat Grain Company and the Cumberland Seed Company.

F. W. Whalley is now president of the Portland Seed Company of Portland, Ore., and Albert M. Hand, vice-president and sales manager. Mr. Whalley succeeds B. L. Baucom who is retiring from the company after 35 years. Mr. Hand succeeds George S. Reid who sold his interest in the seed company.

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Statement of Condition at Close of Business December 31, 1927

ASSETS		LIABILITIES	
Loans and Discounts	\$237,103,600.56	Capital Stock paid in.....	\$ 15,000,000.00
United States Bonds and U. S. Certificates	4,014,097.67	Surplus Fund	15,000,000.00
U. S. Bonds to Secure Postal Savings Deposits	780,000.00	Other Undivided Profits.....	5,043,360.17
U. S. Bonds to Secure U. S. Deposits...	700,000.00	Discount Collected but not Earned....	1,229,210.14
Other Bonds and Securities (market value)	5,872,803.00	Dividends Declared but Unpaid.....	822,585.50
Real Estate (Bank Building).....	4,436,043.46	Reserved for Taxes.....	2,029,326.86
Federal Reserve Bank Stock.....	900,000.00	Liability Account of Acceptances....	6,189,448.01
Customers' Liability Account of Acceptances	5,006,654.49	Bills Payable and Rediscounts.....	8,850,907.26
CASH RESOURCES		Time Certificates of Deposit	\$ 1,050,000.00
Due from Fed. Res. Bank	\$27,731,137.56	Time Deposits	26,711,865.87
Cash & Due from Banks	43,206,628.86	Demand Deposits....	246,448,171.17
Other Assets	54,649.21		274,210,037.04
	\$329,805,614.81	Liabilities other than those above stated	1,430,739.83
			\$329,805,614.81
		Contingent Liabilities	under Commercial and Travellers Letters of Credit Guaranteed by Customers. \$6,507,467.39

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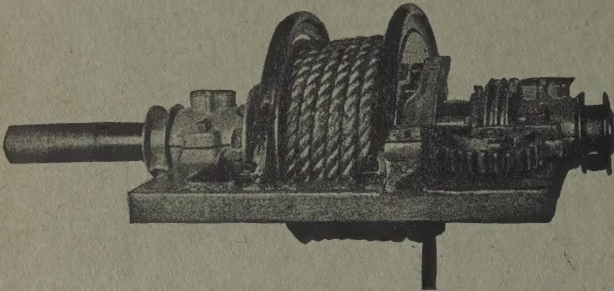
Statement of Condition at Close of Business December 31, 1927

ASSETS		LIABILITIES	
Bonds and Securities.....	\$ 46,955,219.62	Capital Stock	\$ 7,500,000.00
Time Loans and Discounts.....	50,890,848.82	Surplus Fund	7,500,000.00
Federal Reserve Bank Stock.....	450,000.00	Other Undivided Profits.....	5,231,420.40
Bank Premises (Equity)	3,209,336.32	Reserved for Interest and Taxes.....	1,944,800.10
Demand Loans.....	\$29,987,215.40	Bills Payable	2,550,000.00
Due from Fed. Res. Bank	5,599,698.02	Liability as Endorser on bills purchased and sold.....	4,234,890.35
Cash & Due from Banks	8,957,061.45	Time Deposits	\$95,148,795.92
Other Assets	339,706.59	Demand Deposits ...	21,362,395.24
	\$146,389,086.22	Liabilities other than those above stated	916,784.21
			\$146,389,086.22

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IMPROVED WELLER POWER SHOVEL

(PATENTED)



One of our customers who tried out a Weller Shovel said, "If an operator ever uses one of your new shovels he will never use any other make. It sure does the work and is easy to operate."

Claims of superiority for Weller Power Shovel—No counter weights—No counterweight ropes. Pulls at any point the shovel is stopped. Less Noise and vibration than any other shovel on the market. Positive in action. Never misses engaging the clutch. Easy on the operator. Occupies less space. Time is saved in erection. Shipped Ready to install.

Send for Power Shovel Circular

We Also Make

CLARK'S POWER SHOVELS

And a Complete Line of

GRAIN HANDLING EQUIPMENT



WELLER MFG. CO.

1820-1856 N. Kostner Ave.

CHICAGO, ILL.

MOHAWK



RUBBER BELTING

For many years the Standard Belting for elevators.

Specify this belting when contracting to build or remodel.

Demand it when ordering direct.

Hewitt-Gutta Percha Rubber Corporation

A consolidation of the
Hewitt Rubber Company
and

The Gutta Percha & Rubber Mfg. Co.

Executive Offices and Factory at Buffalo, N. Y. Branches

Chicago
Pittsburgh
Denver

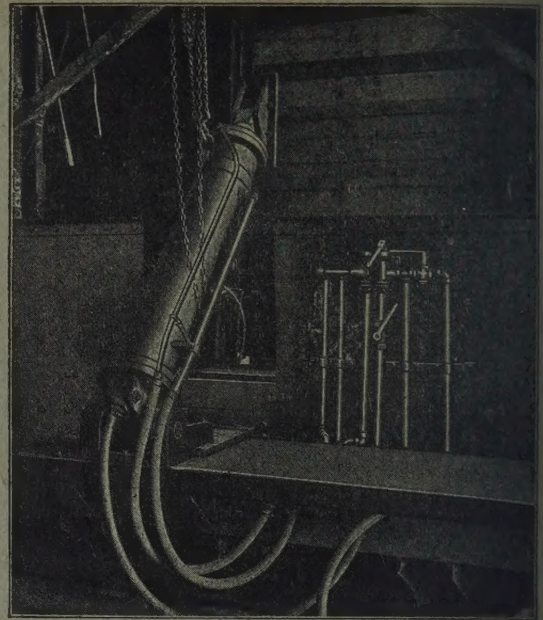
New York
Boston
Philadelphia

Salt Lake City
El Paso
Los Angeles



**PETERSON
GRAIN DOOR
REMOVER**

(Mfg. Under
License)



Remove Grain Doors This QUICK Way!

Grain doors are pushed in with this powerful tool in two minutes—easily, neatly, without breakage, with the

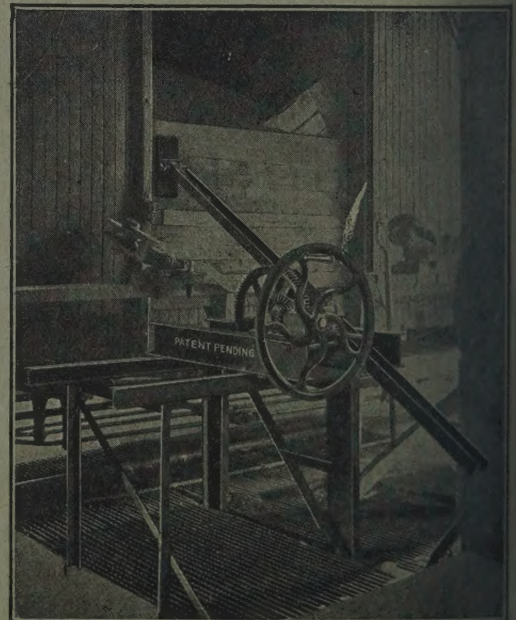
Peterson Pneumatic Grain Door Remover

It requires only 100 lbs. air pressure to exert 6000 lbs. pressure on the door. The surplus air is available for cleaning, signalling and other uses.

PANK Grain Door Remover

A simple, hand-operated tool. Turning the fly-wheel develops a powerful leverage with enough pressure to easily open any door or entire section. Installed in either new or old elevators.

Grain door removers save labor, eliminate breakage and prevent costly unloading delays. Write us for full information.



Pank Grain Door Remover



**Increase Your Elevator Capacity
20% With Superior D. P. Cups**

They hold more, are placed closer on belt, discharge perfectly. Nothing to change but the cups. We carry full stocks.

Everything for Every Mill and Elevator

The Strong-Scott Mfg Co.
Minneapolis Minn. Great Falls Mont.
In Canada: The Strong-Scott Mfg. Co. Ltd. Winnipeg

